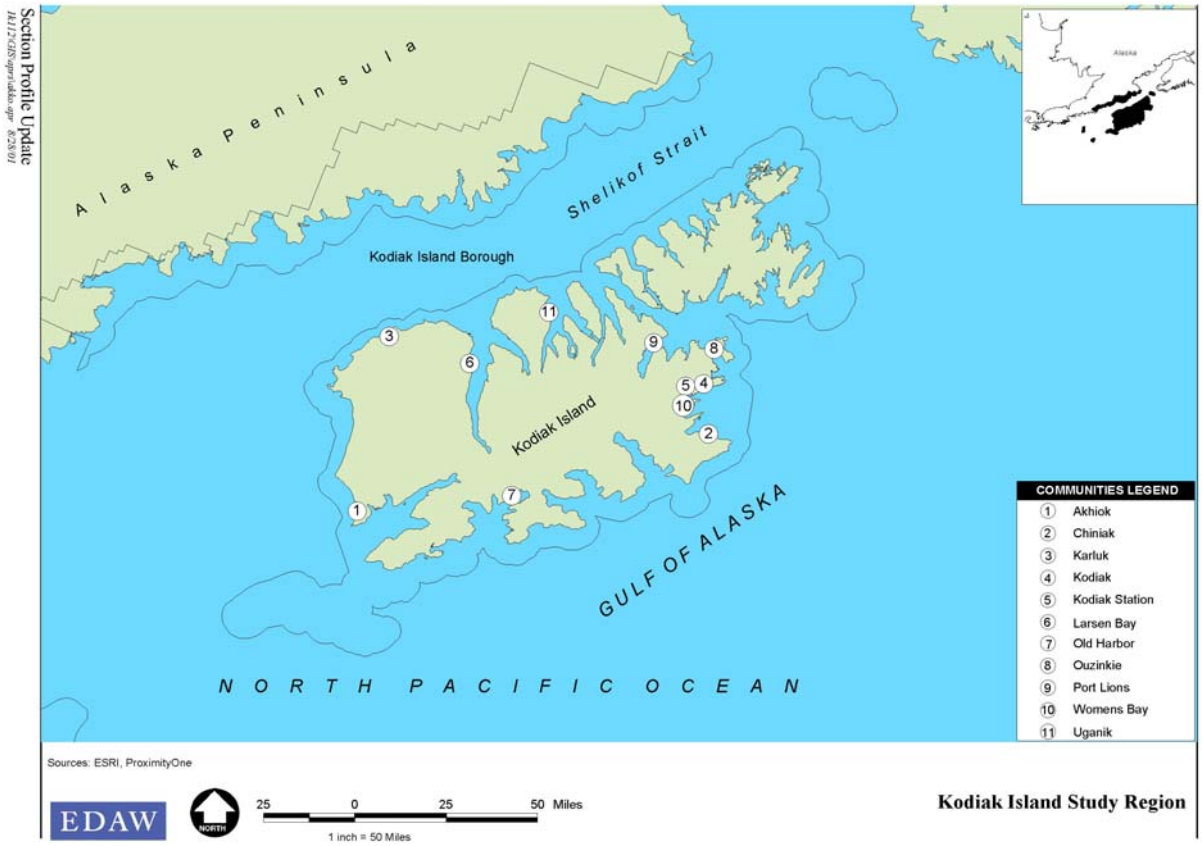
3.2 Kodiak Island Region

3.2.1 Overview

The Kodiak Island region consists of the area encompassed by the Kodiak Island Borough (KIB). The KIB includes Kodiak Island itself and its multiple communities, as well as a number of smaller islands in the Kodiak Archipelago and a portion of the Alaska Peninsula, as shown in Figure 3.2-1.

Although all of the area communities are included in the general regional discussion, for all intents and purposes all linkages between this region and the groundfish fishery are with the City of Kodiak and its "suburbs." (Processing data does show that groundfish are also run at Atilak, but this is a relatively specialized operation and very small relative to the aggregated operations associated with the City of Kodiak.) Kodiak is one of the most important fishing ports in the country, both in the volume and value of fish processed, and as the homeport to a large and diversified fishing fleet. It is the dominant fishing community in the Gulf of Alaska for groundfish, and is important for salmon, halibut, and other species as well.

Figure 3.2-1. Kodiak Island Study Region



3.2.2 Population

Table 3.2-1 displays historic total population figures for all of the communities and other named places within the KIB. There are known inconsistencies and defects in this information, so trends and relationships are more important than the absolute values. The City of Kodiak has become the hub community of the region, at present comprising just under half of the KIB's population. Furthermore, a significant part of the region's population lives very near Kodiak, either on the Coast Guard base, in an unincorporated area just outside of city limits, or in Women's Bay (a recently developed housing development near the City of Kodiak and the Coast Guard base). Thus other historically settled places on Kodiak Island have through time become relatively smaller in relation to the City of Kodiak and its immediate environs. At present it can be estimated that approximately 85 percent of the KIB's population lives in the City of Kodiak, its immediate environs, or on the Coast Guard base.

Table 3.2-1. 1880-2000 Total Population Selected Communities, Kodiak Island Region

Community	Type	2000	1990	1980	1970	1960	1950	1940	1930	1920	1910	1900	1890	1880
Akhiok	2nd Class	80	77	105	115	84	72	0	0	94	106	0	0	114
Chiniak	Unincorp.	50	69	0	0	0	0	0	0	0	0	0	0	0
Karluk	Unincorp.	27	71	96	98	129	144	189	192	99	549	470	1,123	302
Kodiak	Home Rule	6,334	6,365	4,756	3,798	2,628	1,710	864	442	374	438	341	495	0
Kodiak Island Borough	2nd Class Bor	13,913	13,309	9,939	6,357	7,174	0	0	0	0	0	0	0	0
Kodiak Station	Unincorp.	1,890	2,025	1,370	3,052	0	0	0	0	0	0	0	0	0
Larsen Bay	2nd Class	115	147	168	109	72	53	38	0	0	0	0	20	0
Old Harbor	2nd Class	237	284	340	290	193	121	109	84	54	0	0	86	160
Ouzinkie	2nd Class	225	209	173	160	214	177	253	168	96	0	0	74	45
Port Lions	2nd Class	256	222	215	227	0	0	0	0	0	0	0	0	0
Uganik	Unincorp.	0	0	0	0	0	0	0	0	0	0	153	31	73
Womens Bay	Unincorp.	690	620	0	0	0	0	0	0	0	0	0	0	0

Source: Historic data from Alaska Department of Community and Economic Development. 2000 data from U.S. Bureau of the Census, accessed through www.census.gov/prod/cen2000/index.

As shown in Table 3.2-2, almost all the smaller communities on Kodiak Island in 2000 were predominately Alaskan Native, in terms of ethnicity, with Caucasians comprising the bulk of the remaining population. The exception is Chiniak, which compared to the others has only been settled relatively recently. As will be described below, economic opportunities within these communities are relatively undiversified and undeveloped. For the three larger communities (over 300 people), the situation is somewhat more complex. Kodiak Station (the Coast Guard base) is predominately Caucasian (85 percent), with few Alaskan Natives (2 percent). One-half of the KIB's entire black population (1 percent of the overall KIB population) lives at the Station, along with a more diverse representation of other ethnic groups than for any community in the region outside of Kodiak. The City of Kodiak is the most ethnically diverse on the island -- 46 percent Caucasian, 31 percent Asian, 10 percent Alaskan Native, and 13 percent other. The large majority of the KIB's Black, Asian, and Pacific Islander population lives in (or near) the City of Kodiak and the Coast Guard Station, and the civilian component of this population is associated to a certain degree with fish processing and other service jobs. Women's Bay is essentially a bedroom community for Kodiak and the Coast Guard base, albeit for the most prosperous segment of that population. Thus, enlisted men and members of minority groups other than Alaskan Natives are not well represented in Women's Bay.

Table 3.2-2. 2000 Regional Population Composition Selected Communities, Kodiak Island Region

Community	Male	Female	Native	Percent Native	Caucasian	Black	Asian	Native Hawaiian & Other Pacific Islanders	Some Other Race	Two or More Races	Hispanic
Akhiok	44	36	69	86.3%	2	0	3	0	0	6	1
Chiniak	33	17	1	2.0%	44	0	1	0	3	1	4
Karluk	15	12	26	96.3%	0	0	1	0	0	0	0
Kodiak	3,379	2,955	663	10.5%	2,939	44	2,010	59	276	343	541
Kodiak Island Borough	7,362	6,551	2,028	14.6%	8,304	134	2,232	110	387	718	848
Kodiak Station	954	886	36	2.0%	1,617	67	19	7	45	49	102
Larsen Bay	61	54	90	78.3%	240	0	0	0	0	1	0
Old Harbor	133	104	173	73.0%	31	0	0	0	0	33	0
Ouzinkie	103	122	182	80.9%	25	0	0	0	0	18	10
Port Lions	136	120	162	63.3%	89	0	0	0	0	5	5
Uganik	0	0	0	0%	0	0	0	0	0	0	0
Womens Bay	366	324	42	6.1%	592	4	10	0	0	42	12

Source: U.S. Bureau of the Census, accessed through www.census.gov/prod/cen2000/index.

Table 3.2-3 below displays selected housing information from the 2000 U.S. Census for all named places on Kodiak Island. Those places with household and family incomes greater than the median value for the borough are Kodiak and Women's Bay. These are the largest communities, and the most economically diverse. Ouzinkie and Port Lions also have relatively high household and family incomes. The City of Kodiak and Women's Bay have the lowest vacancy rate for housing among the civilian communities on the island, which reflects the local perception that demand for affordable housing in and near the city is still in high demand. Other communities vary in their vacancy rates, but as a general rule vacant structures are older or of lesser quality than the occupied units.

Table 3.2-3a. 1990 Housing and Household Information Selected Communities, Kodiak Island Region

Community	Total Units	Occupied Units	Vacant Units	Total Households	Average Household Size	Median Household Income	Total Family Households	Median Family Income
Akhiok	35	19	16	19	4	42,500	15	43,750
Chiniak	36	23	13	23	3	44,375	12	38,750
Karluk	27	18	9	18	4	31,250	15	31,875
Kodiak	2,177	2,051	126	2,051	3	46,050	1,399	49,404
Kodiak Island Borough	4,885	4,083	802	4,083	3	44,815	2,982	47,600
Kodiak Station	499	414	85	414	4	34,196	402	33,750
Larsen Bay	74	44	30	44	3	39,750	33	39,375
Old Harbor	112	87	25	87	3	16,875	64	17,813
Ouzinkie	82	68	14	68	3	48,393	51	46,250
Port Lions	103	73	30	73	3	40,938	55	47,917
Uganik	0	0	0	0	0	0	0	
Womens Bay	255	220	35	220	3	44,861	153	51,537

Source: Alaska Department of Community and Economic Development

Table 3.2-3b. 2000 Housing and Household Information Selected Communities, Kodiak Island Region

Community	Total Units	Occupied Units	Vacant Units	Total Households	Average Household Size	Median Household Income	Total Family Households	Median Family Income
Akhiok	34	25	9	25	3.20	a	17	a
Chiniak	32	24	8	24	2.08	a	14	a
Karluk	24	9	15	9	3.00	a	7	a
Kodiak	2,255	1,996	259	1,996	3.10	a	1,362	a
Kodiak Island Borough	5,159	4,424	735	4,424	3.07	a	3,257	a
Kodiak Station	536	492	44	492	3.55	a	481	a
Larsen Bay	70	40	30	40	2.88	a	26	a
Old Harbor	111	79	32	79	3.00	a	52	a
Ouzinkie	86	74	12	74	3.04	a	56	a
Port Lions	106	89	17	89	2.88	a	76	a
Uganik	0	0	0	0	0	a	0	a
Womens Bay	269	251	18	251	2.75	a	176	a

2000 census data are not yet available for household income – this table will be updated as soon as they are available.

Source: U.S. Bureau of the Census, accessed through. www.census.gov/prod/cen2000/index

3.2.3 Employment and Income

Table 3.2-4 below displays labor force characteristics for named places from the 1990 U.S. Census.[5] The City of Kodiak, Women's Bay, and Kodiak Station are again differentiated from the other communities. They have relatively low rates on three economic measures -- adults not working, unemployment, and poverty. Other communities are high on one or more of these measures. This could be related to many factors, but appears to reflect the greater diversity and number of economic opportunities in the larger communities. Kodiak Station is of course a special case in that most adults are employed before moving there, with most unemployed adults presumably being spouses or other family members of Coast Guard members.

[5] Relevant data from the 2000 census are not yet available, so this section still relies on 1990 data – it will be updated as soon as the information becomes available.

Table 3.2-4. 1990 Employment and Poverty Information Selected Communities, Kodiak Island Region

Community	Total Persons Employed	Unemployed	Percent Unemployment	Percent Adults not Working	Not Seeking Employment	Percent Poverty
Akhiok	26	6	18.80%	50.90%	21	2.40%
Chiniak	37	2	5.10%	28.80%	13	20.20%
Karluk	30	3	9.10%	40.00%	17	3.60%
Kodiak	3,644	162	4.40%	23.00%	927	6.20%
Kodiak Island Borough	7,218	346	5.30%	23.90%	1,918	5.50%
Kodiak Station	1,178	23	6.30%	12.10%	139	7.00%
Larsen Bay	36	24	40.00%	67.60%	51	3.10%
Old Harbor	42	27	39.10%	75.90%	105	31.50%
Ouzinkie	77	18	18.90%	51.90%	65	10.20%
Port Lions	85	14	14.10%	41.80%	47	5.30%
Uganik	0	0	0.00%	0.00%	0	0.00%
Womens Bay	312	19	6.50%	26.20%	92	3.20%

Source: U.S. Bureau of the Census

Table 3.2-5 describes regional personal income and earnings in terms of economic sectors for the period 1975-1999. To a large extent this represents the economy of Kodiak and its immediate surroundings. The first sector, which includes fishing (harvesting) is known to be underestimated to a significant, but variable, degree from year-to-year. It is clearly an important component of the regional economy. The manufacturing sector includes several sorts of entities, but is primarily composed of fish processors. As such, it tracks the rise (and fall) of fish industry activity in Kodiak, and would be expected to be related in a reasonably direct way with income from fish harvesting. This sector has historically been the single largest component of the regional economy and is an important base for the retail, service, and government sectors, but in 2000 service employment surpassed manufacturing. Construction and federal civilian employment have been variable over this period. The financial and real estate sector has grown, but leveled off in more recent times. The military sector has been fairly flat since the early 1980s.

Table 3.2-5. Total Employment for Kodiak Island Region, 1975–1999

Sector	No. of Persons Employed by Year					
	1975	1980	1985	1990	1995	1999
Agricultural Services, Forestry, Fishing, and Other	1,347	1,642	1,572	1,238	1,026	1,237
Construction	309	148	407	326	321	271
Federal, Civilian	318	282	239	164	161	179
Finance, Insurance, and Real Estate	101	114	180	294	323	311
Manufacturing	1,178	2,060	1,473	2,209	2,437	1,855
Military	1,894	1,387	1,122	1,181	1,143	1,019
Mining	0	0	13	a	a	a
Retail Trade	525	711	887	1,093	1,128	1,206
Service	567	858	1,036	1,615	1,593	1,934
State and Local	663	745	907	937	922	933
Transportation and Public Utilities	260	404	284	399	431	382
Wholesale Trade	47	49	54	50	111	65

Note: Where "a" appears in the table, the data is suppressed due to confidentiality reasons, or because there were fewer than ten jobs in that sector during the year indicated. Where an "a" follows a numerical value, one or more of the underlying statistical areas faced disclosure or other limitations. Although the data do not appear in the table, the totals shown in the summary table reflect all available information, which might include estimates of employment and income for unusually small sectors.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (REIS), 1969-1999. Personal income and employment estimates for all counties and metropolitan areas in the United States.

Table 3.2-6 provides information on earnings by sector. As shown, manufacturing income and earnings still far outpace service income and earnings, despite the fact that there is a larger number of jobs in the service sector. This table also underscores the continuing importance of military income and earnings, which rank second only to manufacturing.

Table 3.2-6. Personal Income and Earnings for Kodiak Island Region

Sector	Earnings by Year ($Millions)					
	1975	1980	1985	1990	1995	1999
Agricultural Services, Forestry, Fishing, and Other	12.9	18.5	13.9	47.3	32.9	28.4
Construction	8.4	5.2	18.4	11.3	14.1	13.5
Federal, Civilian	7.2	10.4	11.5	8.2	10.2	11.8
Finance, Insurance, and Real Estate	1.5	2.7	3.2	3.2	5.3	7.0
Manufacturing	15.5	37.5	21.4	51.1	64.1	59.5
Military	24.7	26.3	37.4	38.5	48.0	51.6
Mining	a	0.6	0.6	a	0.1	0.1
Retail Trade	6.4	11.1	16.7	19.0	20.2	21.6
Service	5.3	12.5	19.3	31.1	31.2	43.7
State and Local	10.6	18.0	31.1	34.5	38.4	36.1
Transportation and Public Utilities	3.7	10.5	11.0	12.8	14.2	12.9
Wholesale Trade	0.7	0.9	1.3	1.2	4.6	2.8

Note: Where "a" appears in the table, the data is suppressed due to confidentiality reasons, or because there were fewer than ten jobs in that sector during the year indicated. Where an "a" follows a numerical value, one or more of the underlying statistical areas faced disclosure or other limitations. Although the data do not appear in the table, the totals shown in the summary table reflect all available information, which might include estimates of employment and income for unusually small sectors.

Source: REIS, 1969-1999. Personal income and employment estimates for all counties and metropolitan areas in the United States.

Table 3.2-7 below displays personal income, population, per capita income, and total employment changes on a regional basis for the period 1975-1999. Note that it does not include self-employed persons (and most fish harvesters are considered self-employed).

Table 3.2-7. Personal Income, Population, Per Capita Income and Total Employment for Kodiak Island Region

Indicator	Indicator Data by Year					
	1975	1980	1985	1990	1995	1999
Personal Income ($Millions)	102.0	153.0	200.0	289.9	331.7	361.7
Population (No. of Persons)	9,153	10,004	12,243	13,400	14,883	14,350
Per Capita Personal Income ($)	$11,142	$15,298	$16,340	$21,637	$22,290	$25,204
Total Full- and Part-Time Employment (No. of Persons)	7,209	8,400	8,174	9,509	9,603	9,398

Personal income includes nonfarm and farm income (adjusted for social insurance and residence) plus dividends, interest, rent, and transfer payments.

Source: REIS, 1969-1999. Personal income and employment estimates for all counties and metropolitan areas in the United States.

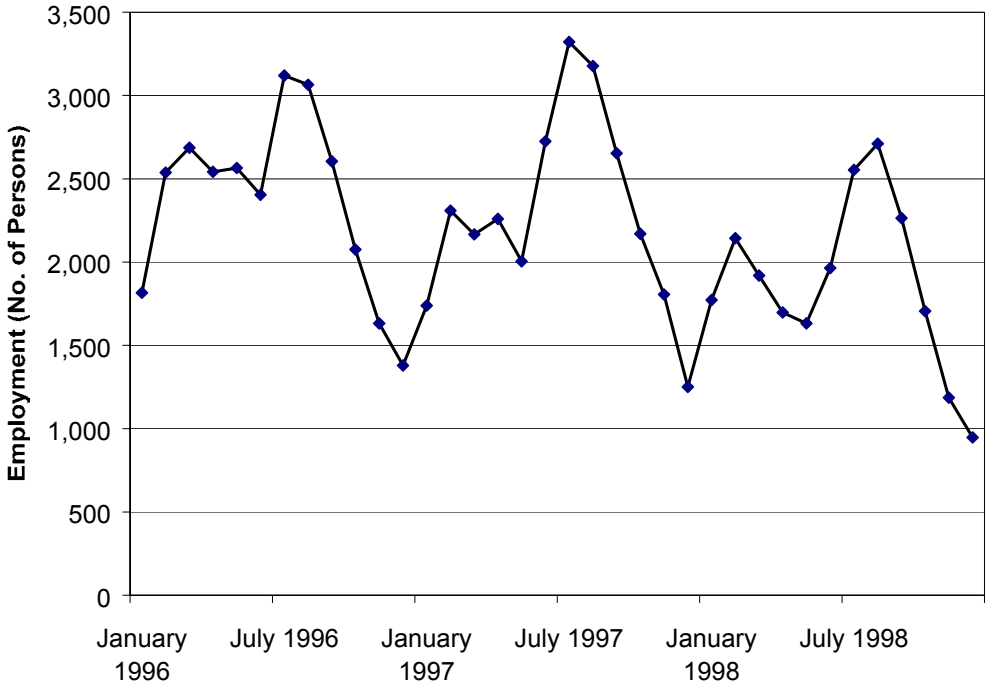
Payments to labor by local processors represent only part of the Kodiak region food and kindred products manufacturing sector (Table 3.2-8). Still, monthly employment in the Kodiak region food and kindred products manufacturing sector is cyclical in a pattern which implies that fish processing is a major component of this sector (Figure 3.2-2). Such employment peaks in the summer, June through August, corresponding to the peak of salmon returns.

Table 3.2-8. Employment and Earnings in the Kodiak Island Region Food and Kindred Products Manufacturing Sector, 1996–1998

Indicator	Year		
	1996	1997	1998
Annual Average Monthly Employment (No. of Persons)	2,369	2,299	1,875
Total Annual Earnings ($Millions)	43.4	45.4	50.0

Source: DOLWD, Employment and Earnings Summary Report for Alaska and all boroughs and census areas, 1996, 1997, and 1998 reports.

Figure 3.2-2. Monthly Employment in the Kodiak Island Region Food and Kindred Products Manufacturing Sector, 1996–1998



Source: DOLWD, Employment and Earnings Summary Report for Alaska and all boroughs and census areas, 1996, 1997, and 1998 reports.

3.2.4 Infrastructure

Table 3.2-9 below lists the basic infrastructure present in named places for the Kodiak region, with service providers. Its main purpose is to indicate the current potential in each place for continued or increased economic activity, whether fishery-related or not. The distinctions between the City of Kodiak and the other communities on the island are again obvious. The City of Kodiak is the regional hub, with the most developed infrastructure and services. Women's Bay and Chiniak are fairly recent residential developments dependent on their road connection to the City of Kodiak. While they lack many services of the other communities (water and sewer, for example), housing is of newer construction and higher quality. Their residents tend to have relatively high incomes and choose to

live where they do to take advantage of jobs and services available in the City of Kodiak without actually living in the city. Kodiak Station is fairly independent in terms of infrastructure and services, but functions as part of the City of Kodiak in terms of housing supply and other economic considerations. The other named communities are all much smaller, more remote in location, and predominately Native. These communities have limited infrastructure and services, but do generally have access to the basic civic inventory. They are reliant on the Borough and State for services to a much greater extent than is the City of Kodiak.

Table 3.2-9. Community Infrastructure and Service Providers Selected Communities, Kodiak Island Region

Community	Water	Sewer	Landfill	Electric	Health	Police	Fire, Rescue
Akhiok	City	City	City	City of Akhiok	Akhiok Health Clinic	City/State VPSO	City/State VPSO/Volunteer Fire/EMS
Chiniak	Individuals	Individuals	Not available	Kodiak Electric Association	n/a	None	Borough/Chiniak Volunteer Fire/EMS
Karluk	Village Council	Village Council	Village Council	Alutiiq Power Company	Karluk Health Clinic	None (State VPSO vacant)	Borough/Karluk Village Response Team
Kodiak	City; School	City	Borough	Kodiak Electric Association	Providence Kodiak Island Medical Center; KANA Clinic; USCG Medical Center; Private	City Police; State Troopers	City Fire/EMS Dept. & Volunteers
Kodiak Island Borough	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kodiak Station	U.S. Coast Guard	U.S. Coast Guard	Borough	Kodiak Electric Association	USCG Medical Clinic	Military Police	n/a
Larsen Bay	City	City	City	Larsen Bay Utility Company	Larsen Bay Health Clinic	None (State VPSO vacant)	City Volunteer Fire Dept.; City Fire Station
Old Harbor	City	City	City	AVEC	Old Harbor Health Clinic	State VPSO	State VPSO & Volunteers; City Fire Hall
Ouzinkie	City	City	City	City of Ouzinkie Utilities	Ouzinkie Health Clinic	State VPSO	City Volunteer Fire Dept.; USCG
Port Lions	City	City	City	Kodiak Electric Association	Port Lions Health Clinic	State VPSO	City Volunteer Fire Dept./EMT
Uganik	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Womens Bay	Individuals	Individuals	Kodiak	Kodiak Electric Association	n/a	None	Borough Volunteer Fire

Source: DCED Alaska Community Database Online. www.dced.state.ak.us\MRA\CF_COMDB.htm

3.2.5 Taxes and Revenue

Table 3.2-10 below demonstrates the vast difference between those regional political entities with substantial fiscal resources, the City of Kodiak and the Kodiak Island Borough, and the other named places on the island. City or community services outside of the City of Kodiak are quite limited or are privately supplied. Public schools are operated by the Borough, and school expenditures account for 60 percent of the KIB's total budget. It should be noted that Larsen Bay has the highest revenue per capita of any KIB community, primarily because of its relatively small size the and operation of a salmon processing facility in the area. As might be expected, most taxes are levied either by the KIB or the City of Kodiak. The KIB levies a property tax of 9.25 mils, a 5 percent accommodations tax, and a 0.925 percent severance tax on natural resources. The City of Kodiak levies a property tax of 2.0 mils, a sales tax of 6 percent, and the communities of Larsen Bay, Old Harbor, and Ouzinke each levy a city sales tax of 3 percent. In addition there are service area fees outside of the City of Kodiak for property owners within such areas. Table 3.2-11 provides a breakout of revenue by source type.

Table 3.2-10. Community Taxes Selected Communities, Kodiak Island Region

Community	Property Tax	Sales Tax	Special Taxes
Akhiok	9.25 mils (Borough)	None	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Chiniak	9.25 mils (Borough)	None	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Karluk	9.25 mils (Borough)	None	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Kodiak	2.0 mils (City) 9.25 mils (Borough)	6% (max. $30 per transaction)	5% Accommodations Tax (City/Borough)
Kodiak Island Borough	9.25 mils	None	5% Accommodations Tax; 0 .925% Severance Tax
Kodiak Station	9.25 mils (Borough)	None	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Larsen Bay	9.25 mils (Borough)	3%	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Old Harbor	9.25 mils (Borough)	3%	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Ouzinkie	9.25 mils (Borough)	3%	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Port Lions	9.25 mils (Borough)	None	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Uganik	9.25 mils (Borough)	None	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)
Womens Bay	9.25 mils (Borough)	None	5% Accommodations Tax (Borough) 0.925% Severance Tax (Borough)

Source: DCED Alaska Community Database Online. www.dced.state.ak.us\MRA\CF_COMDB.htm

Table 3.2-11. Community Revenues (1998) Selected Communities, Kodiak Island Region

Community	Local Tax Revenues	Subtotal Local Revenues	Subtotal Outside Revenues	Total Operating Revenues	Revenue Per Capita	Capital Project Revenues
Akhiok	0	55,806	41,753	97,559	895	45,038
Chiniak	n/a	n/a	n/a	n/a	n/a	n/a
Karluk	n/a	n/a	n/a	n/a	n/a	n/a
Kodiak	7,288,246	16,628,090	1,245,529	17,873,619	2,606	101,424
Kodiak Island Borough	8,062,543	17,709,637	24,533,265	42,242,902	3,050	6,868,015
Kodiak Station	n/a	n/a	n/a	n/a	n/a	n/a
Larsen Bay	15,730	303,443	181,775	485,218	3,821	37,817
Old Harbor	10,664	122,498	74,766	197,264	664	25,472
Ouzinkie	13,361	339,144	130,464	469,608	1,864	154,010
Port Lions	0	240,989	57,615	298,604	1,234	200,000
Uganik	n/a	n/a	n/a	n/a	n/a	n/a
Womens Bay	n/a	n/a	n/a	n/a	n/a	n/a

Source: DCED Alaska Community Database Online. www.dced.state.ak.us\MRA\CF_COMDB.htm

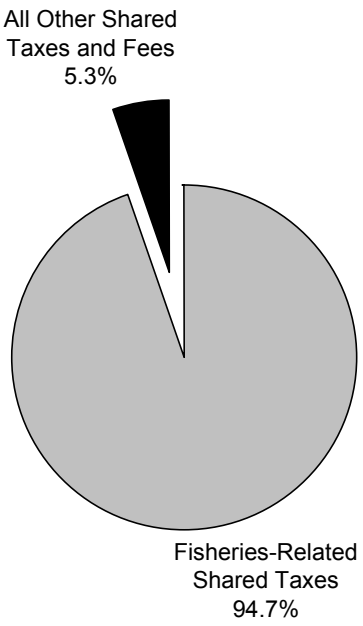
The Kodiak Island region is also heavily dependent on the income that is derived from fisheries taxes. As illustrated in Figure 3.2-3, 94.7 percent of the region's shared taxes and fees were fisheries-related in fiscal year 1999. The region's share of the fisheries business tax and fishery resource landing tax amounted to $1,330,856 in that year. As Figure 3.2-4 illustrates, the shared tax revenue is down 38 percent from 1993, when it represented $2,135,750 of the region's tax revenue. Table 3.2-12 depicts the revenue generated for the Kodiak Island region for each of the shared fisheries taxes.

Table 3.2-12. Fisheries-related Shared Taxes in the Kodiak Island Region, Fiscal Years 1993-1999

	1993	1994	1995	1996	1997	1998	1999
Shared Fisheries Business Tax Revenue ($)	2,135,750	1,564,245	1,725,766	1,972,430	1,504,885	1,458,054	1,319,773
Shared Fishery Resource Landing Tax Revenue ($)			73,856	42,994	34,577	31,840	11,083
Total Fisheries-Related Shared Tax Revenue ($)	2,135,750	1,564,245	1,799,622	2,015,424	1,539,462	1,489,894	1,330,856

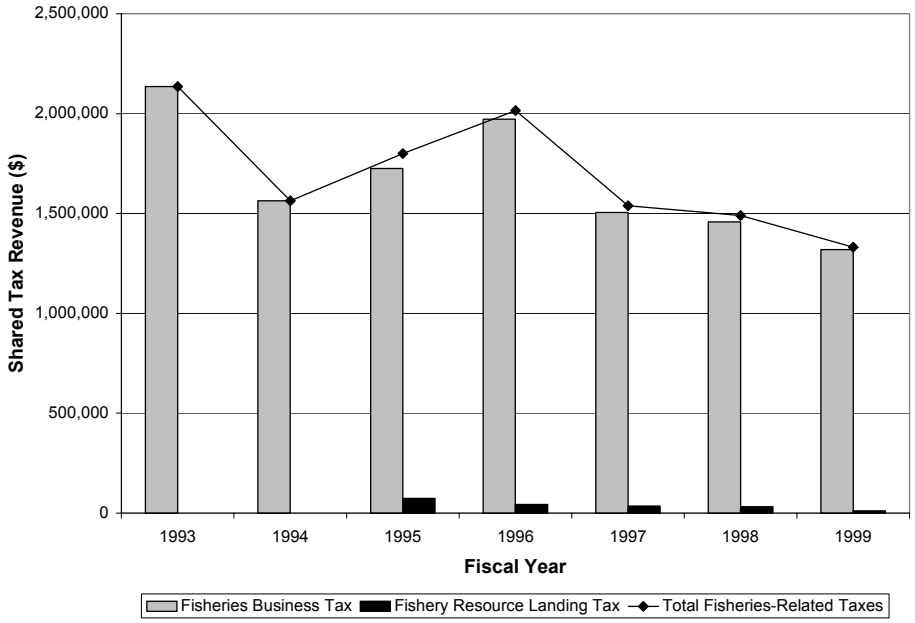
Source: ADOR, 2000.

Figure 3.2-3. Percentage of Fisheries-Related Shared Taxes and Fees in the Kodiak Island Region, Fiscal Year 1999



Source: ADOR, 2000.

Figure 3.2-4. Fisheries-Related Shared Taxes in the Kodiak Island Region, Fiscal Years 1993-1999



Source: ADOR, 2000.

3.2.6 Inshore Groundfish Processing

Table 3.2-13 provides information on the number of tons of groundfish processed at shoreplants physically located within the region, reflecting the volume of fish coming ashore. Table 3.2-14 shows the number of entities processing this volume. Table 3.2-15 provides information, by species, of the processed product value at shoreplants within the region.

For the Kodiak Island region, the volume of groundfish processed has fluctuated significantly over the years shown, as has the value of processed product. The number of shoreplants processing groundfish declined somewhat during this period. Since 1995, one plant has operated at Alitak and the rest of the region's plants have operated in Kodiak.

Table 3.2-13. Round Weight Tons of Groundfish Processed by Shoreplants in the Kodiak Island Region, 1992-2000

Year	Thousands of Tons
	KSP
1992	106.78
1993	124.90
1994	114.39
1995	82.47
1996	74.79
1997	101.08
1998	115.21
1999	116.71
2000	105.97

Source: NMFS Blend and Weekly Production Report Data, June 2001.

Table 3.2-14. Number of Shoreplants in the Kodiak Island Region, 1992-2000

Year	Number of Shoreplants
	KSP
1992	14
1993	14
1994	12
1995	12
1996	10
1997	10
1998	10
1999	12
2000	11

Source: NMFS Blend Data, 2001

Table 3.2-15. Value of Groundfish Processed Product by Shoreplants in the Kodiak Island Region, 1992-2000

Year	$Millions
	KSP
1992	80.28
1993	81.72
1994	85.52
1995	92.01
1996	71.34
1997	76.27
1998	77.70
1999	94.65
2000	89.57

Source: NMFS Blend and Weekly Production Report Data, June 2001.

Table 3.2-16 provides summary information for processing occurring onshore within the region. Both volume and value are tracked.

As shown, the Kodiak region has a relatively large volume of total tons processed, and a moderate value per ton compared to other regions. This is consistent with engagement in the pollock fishery, a high volume/low value per unit fishery, in combination with other, higher value-per-unit fisheries.

Table 3.2-16. Processing Summary of Kodiak Island Region Inshore Plants, 1992-1999

Year	1992	1993	1994	1995	1996	1997	1998	1999
Total Tons[a] (1,000 mt)	92.2	111.9	98.9	76.8	66.0	83.7	96.8	101.4
Total Product[b] (1,000 mt)	23.9	28.9	25.8	24.3	20.5	21.5	24.1	27.7
Utilization Rate[c] (percent)	26.0	25.8	26.1	31.6	31.0	25.7	24.9	27.3
Product Value[d] ($ millions)	69.0	72.3	77.5	84.0	63.4	62.9	70.4	74.0
Value per Ton[e] ($ per mt)	748.4	645.8	783.9	1,093.7	960.5	751.5	727.2	729.9

Notes:

[a]Total groundfish reported tons retained and discarded (1,000 mt) from NMFS Blend Data.

[b]Total groundfish final product (1,000 mt) from NMFS Weekly Production Reports.

[c]Total final product as a percent of total groundfish reported tons (row 2 divided by row 1).

[d]Total final product value ($ millions) from NMFS Weekly Production Reports with product prices from ADF&G Commercial Operator Annual Reports.

[e]Total value of final product per round weight ton reported (row 4 divided by row 1).

Table 3.2-17 shows employment specifically attributable to the various sectors that process groundfish in the region or, for the mobile processing sectors, are owned by residents of the region. Table 3.2-18 provides parallel information on payments to labor for the same sectors.

As shown, employment in processing sectors in the Kodiak region is heavily concentrated (91 percent in 2000) in the shoreplant sector, with at least some employment occurring among head and gut, pot, and longline catcher processors. Among the catcher processors, pot vessels provide little employment compared with the other two catcher processor sectors. Payments to labor show a similar pattern, with shoreplants accounting for 89 percent of payments to labor by regional processors in 2000.

Table 3.2-17. Groundfish Processing FTE Employment on At-Sea Processors Owned by Residents or Shore-Based Processors in the Kodiak Island Region, 1992-2000

Year	Processing FTE Employment in the Region													
	ST-CP	FT-CP	HT-CP	P-CP	L-CP	BSP-SP	APA-SP	K-SP	SC-SP	SE-SP	MS	FLT	OTHER	Total
1992	0.00	0.00	35.19	0.00	14.26	0.00	0.00	518.16	0.00	0.00	0.00	0.00	0.01	567.62
1993	0.00	0.00	31.43	a	12.74	0.00	0.00	599.76	0.00	0.00	0.00	0.00	a	643.93
1994	0.00	0.00	37.58	0.00	10.55	0.00	0.00	531.42	0.00	0.00	0.00	0.00	0.00	579.56
1995	0.00	0.00	17.95	3.47	9.06	0.00	0.00	646.70	0.00	0.00	0.00	0.00	0.00	677.18
1996	0.00	0.00	35.04	5.56	12.04	0.00	0.00	485.08	0.00	0.00	0.00	0.00	0.00	537.72
1997	0.00	0.00	28.82	3.37	11.47	0.00	0.00	594.85	0.00	0.00	0.00	0.00	a	638.52
1998	0.00	0.00	31.52	4.10	23.11	0.00	0.00	647.24	0.00	0.00	0.00	0.00	a	705.98
1999	0.00	0.00	29.78	3.93	21.16	0.00	0.00	695.48	0.00	0.00	0.00	0.00	0.01	750.35
2000	0.00	0.00	31.87	2.78	28.19	0.00	0.00	632.99	0.00	0.00	0.00	0.00	a	695.82

Note: All employment on at-sea processors (including floaters) and administrative employment at all processors are assigned to the owners region. On-site employment at shore plants are assigned to the region in which the plant is located.

For all sectors, additional payments to labor for admininstrative and office personnel are assigned to the owners region.

a Added to Floaters to ensure confidentiality.

b In order to protect confidentiality, all at-sea and administrative payments to labor for this year reflect averages for the sectors are not adjusted to reflect regional differences.

Table 3.2-18. Adjusted Groundfish Processing Payments to Labor for Shoreside Processors in the Region and for At-sea Processors Owned by Residents of the Kodiak Island Region, 1992-2000

Year	$Millions													
	ST-CP	FT-CP	HT-CP	P-CP	L-CP	BSP-SP	APA-SP	K-SP	SC-SP	SE-SP	MS	FLT	OTHER	Total
1992	0.00	0.00	2.18	0.00	0.76	0.00	0.00	27.84	0.00	0.00	0.00	0.00	0.01	30.79
1993	0.00	0.00	2.15	a	0.55	0.00	0.00	27.93	0.00	0.00	0.00	0.00	a	30.64
1994	0.00	0.00	2.27	0.00	0.57	0.00	0.00	29.55	0.00	0.00	0.00	0.00	0.00	32.40
1995	0.00	0.00	1.20	0.08	0.42	0.00	0.00	29.71	0.00	0.00	0.00	0.00	0.00	31.41
1996	0.00	0.00	1.99	0.15	0.61	0.00	0.00	22.91	0.00	0.00	0.00	0.00	0.00	25.66
1997	0.00	0.00	1.34	0.08	0.52	0.00	0.00	24.22	0.00	0.00	0.00	0.00	a	26.16
1998	0.00	0.00	1.25	0.12	1.22	0.00	0.00	24.23	0.00	0.00	0.00	0.00	a	26.82
1999	0.00	0.00	1.26	0.17	1.47	0.00	0.00	30.12	0.00	0.00	0.00	0.00	0.01	33.03
2000	0.00	0.00	1.69	0.10	1.84	0.00	0.00	28.51	0.00	0.00	0.00	0.00	a	32.13

Note: All payments to labor from at-sea processors (including floating inshore plants) are assigned to the owners region. On-site payments to labor from shore plants are assigned to the region in which the plant is located.

For all sectors, additional payments to labor for admininstrative and office personnel are assigned to the owners region.

a Added to Floating Inshore Processors to ensure confidentiality.

3.2.7 Processing Ownership and Activity

Table 3.2-19 provides information on processors owned by residents of the region. This information is broken out by sector for both shore based and mobile processors.

For the Kodiak region, most locally sited shoreplants are owned by persons or entities from outside the region. In terms of the number of entities owned, since 1996, local ownership of shoreplants has been equaled or exceeded by local ownership in other processing sectors.

Table 3.2-19. Number of Processors Owned by Residents of the Kodiak Island Region, 1992-2001

Year	Number of Processors													
	ST-CP	FT-CP	HT-CP	P-CP	L-CP	BSP-SP	APA-SP	K-SP	SC-SP	SE-SP	MS	FLT	OTHER	Total
1992	0	0	1	0	1	0	0	6	0	0	0	0	1	9
1993	0	0	1	0	1	0	0	6	0	0	0	0	1	9
1994	0	0	1	0	1	0	0	6	0	0	0	0	1	9
1995	0	0	1	1	1	0	0	5	0	0	0	0	1	9
1996	0	0	1	1	1	0	0	3	0	0	0	0	1	7
1997	0	0	1	1	1	0	0	3	0	0	0	0	0	6
1998	0	0	1	1	2	0	0	2	0	0	0	0	0	6
1999	0	0	1	1	2	0	0	4	0	0	0	0	1	9
2000	0	0	1	1	2	0	0	3	0	0	0	0	0	7

Source: NMFS Blend Data, June 2001.

The following group of four tables provides more detailed information on a species break-out basis for regionally owned processors. Table 3.2-20 provides information on the number of regionally owned processors by species by year (as processors may participate in more than one fishery, the subtotals exceed the total number of regionally owned processors). Table 3.2-21 provides information on the volume of fish, by species, processed at these plants. Table 3.2-22 displays information on the wholesale production value by species at these plants. Table 3.2-23 provides information on adjusted processing revenues, by sector, for regionally owned processors.

These tables show that within the relatively small group of Kodiak region owned processors, most processors utilize a range of groundfish species. Although there has been fluctuation through the years, Pacific cod dominated in volume and value in both 1999 and 2000. Revenues are concentrated among shoreplants, accounting for 64 percent of the regional total in 2000.

Table 3.2-20. Number of Processors Owned by Residents of the Kodiak Island Region, by Groundfish Species, 1992-2000

Year	Number of Processors				
	ARSO	FLAT	PCOD	PLCK	Total
1992	9	9	9	8	9
1993	9	8	8	8	9
1994	9	8	8	7	9
1995	9	8	9	8	9
1996	7	6	7	6	7
1997	6	6	6	6	6
1998	6	6	6	6	6
1999	9	7	8	6	9
2000	7	7	7	7	7

Source: NMFS Blend Data, 2001

Table 3.2-21. Round Weight Tons Processed at Processors Owned by Residents of the Kodiak Island Region, by Groundfish Species, 1992-2000

Year	Thousands of Tons				
	ARSO	FLAT	PCOD	PLCK	Total
1992	6.92	14.57	13.59	32.17	67.25
1993	6.78	21.00	14.02	31.53	73.32
1994	11.42	11.93	11.59	36.53	71.46
1995	13.00	3.59	12.45	4.58	33.61
1996	16.51	2.48	7.87	2.99	29.84
1997	10.27	10.10	9.00	4.37	33.73
1998	9.23	8.56	9.54	2.63	29.96
1999	7.69	6.46	14.33	5.83	34.30
2000	7.81	7.63	13.77	3.86	33.07

Note: Values include “Ghost” processors.
Source: NMFS Blend and WPR Data, June 2001

Table 3.2-22. Wholesale Production Value for Processors Owned by Residents of the Kodiak Island Region by Species, 1992-2000

Year	$Millions				
	ARSO	FLAT	PCOD	PLCK	Total
1992	8.15	7.91	12.09	16.88	45.03
1993	7.02	11.41	9.61	12.90	40.94
1994	13.12	7.56	8.72	16.71	46.11
1995	10.99	2.55	9.88	1.97	25.40
1996	13.77	1.18	5.59	1.56	22.10
1997	7.94	3.41	5.28	1.63	18.26
1998	4.56	2.50	8.25	0.43	15.75
1999	4.43	2.50	16.91	0.91	24.75
2000	4.51	2.98	16.84	1.14	25.47

Source: NMFS Weekly Production Reports, June 2001
Note: Values include “Ghost” processors.

Table 3.2-23. Adjusted Groundfish Processing Revenues at Processors Owned by Residents of the Kodiak Island Region, 1992-2000

Year	$Millions													
	ST-CP	FT-CP	HT-CP	P-CP	L-CP	BSP-SP	APA-SP	K-SP	SC-SP	SE-SP	MS	FLT	OTHER	Total
1992	0.00	0.00	5.45	0.00	1.89	0.00	0.00	37.60	0.00	0.00	0.00	0.00	0.09	45.03
1993	0.00	0.00	5.37	a	1.39	0.00	0.00	34.19	0.00	0.00	0.00	0.00	a	40.94
1994	0.00	0.00	5.67	0.00	1.43	0.00	0.00	38.99	0.00	0.00	0.00	0.00	0.03	46.11
1995	0.00	0.00	3.00	0.27	1.05	0.00	0.00	21.07	0.00	0.00	0.00	0.00	0.01	25.40
1996	0.00	0.00	4.97	0.51	1.52	0.00	0.00	15.08	0.00	0.00	0.00	0.00	0.01	22.10
1997	0.00	0.00	3.36	0.26	1.30	0.00	0.00	13.34	0.00	0.00	0.00	0.00	a	18.26
1998	0.00	0.00	3.13	0.40	3.04	0.00	0.00	9.18	0.00	0.00	0.00	0.00	a	15.75
1999	0.00	0.00	3.16	0.57	3.67	0.00	0.00	17.25	0.00	0.00	0.00	0.00	0.10	24.75
2000	0.00	0.00	4.22	0.33	4.60	0.00	0.00	16.33	0.00	0.00	0.00	0.00	a	25.47

a Added to Floating Inshore Processors to ensure confidentiality.

b Due to confidentiality restrictions, all values for this year reflect averages for the processor classes and are not adjusted to reflect regional differences.

Source: Estimated by Northern Economics

3.2.8 Catcher Vessel Ownership and Activity

Tables 3.2-24 through 3.2-26 provide general descriptive information on regionally owned catcher vessels. Table 3.2-24 shows the number of vessels within the length and gear based sector classes as defined in the sector profiles section (Section 2) of this document. Table 3.2-25 contains information the number of catcher vessels by species group (as an individual vessel typically participates in more than one fishery, the subtotals exceed the total number of regionally owned vessels). Table 3.2-26 provides information on the number of vessels owned within the region based strictly on vessel size (irrespective of gear type).

As shown in these tables, in terms of vessel numbers, ownership within the Kodiak region is concentrated within the 33-59′ fixed gear class but all other classes except the largest BSP trawlers are represented. Among the various groundfish species fished, there is a pronounced emphasis on Pacific cod and ARSO among regionally owned vessels. When examined strictly on a vessel length basis, there is an apparent shift during the 1990s from smaller to larger vessels. It is also apparent that catcher vessel ownership within the region does not follow the same pattern as the distribution of processing facilities within the region.

Table 3.2-24. Number of Catcher Vessels Owned by Residents of the Kodiak Island Region, 1992-2000

Year	Number of Vessels										
	TCV BSP ≥ 125	TCV BSP 60-124	TCV Div. AFA	TCV Non-AFA	TCV < 60	PCV	LCV	FGCV 33-59	FGCV ≤ 32	GHOST	Total
1992	0	1	12	14	11	18	14	90	11	38	209
1993	0	1	11	13	11	15	11	62	6	18	148
1994	0	1	11	14	11	15	11	71	9	20	163
1995	0	4	8	11	10	24	8	72	7	25	169
1996	0	5	7	10	10	32	7	62	9	28	170
1997	0	2	9	15	13	25	8	74	14	31	191
1998	0	3	8	13	9	22	6	80	12	28	181
1999	0	1	6	12	6	25	7	85	15	37	194
2000	0	1	6	12	3	36	3	111	20	28	220

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

Table 3.2-25. Number of Catcher Vessels Owned by Residents of the Kodiak Island Region by Species, 1992-2000

Year	Number of Vessels				
	ARSO	FLAT	PCOD	PLCK	Total
1992	131	38	174	65	209
1993	91	34	114	38	148
1994	118	39	114	44	163
1995	100	47	151	47	169
1996	108	52	136	50	170
1997	122	53	178	79	191
1998	117	46	172	70	181
1999	104	35	185	62	194
2000	110	34	216	64	220

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.2-26. Number of Catcher Vessels Owned by Residents of the Kodiak Island Region, by Vessel Length, 1992-2000

Year	Number of Vessels																	
	≤20'	21'-24'	25'-28'	29'-32'	33'-39'	40'-44'	45'-49'	50'-54'	55'-59'	60'-79'	80'-94'	95'-109'	110'-124'	125'-139'	140'-154'	155'-169'	170'+	Total
1992	5	1	2	11	36	26	39	20	9	29	18	7	2	1	1	1	1	209
1993	2	0	4	7	17	11	31	13	11	27	18	4	3	0	0	0	0	148
1994	5	1	3	8	18	24	26	14	12	28	16	4	3	1	0	0	0	163
1995	3	2	3	11	17	21	29	11	15	24	15	9	6	3	0	0	0	169
1996	8	3	1	8	13	16	20	14	23	21	22	13	6	2	0	0	0	170
1997	8	3	7	11	24	23	16	12	28	15	24	14	5	1	0	0	0	191
1998	0	2	5	11	21	31	16	11	29	15	25	11	4	0	0	0	0	181
1999	2	3	5	15	24	29	16	16	29	17	23	11	4	0	0	0	0	194
2000	1	5	9	14	31	34	21	18	29	17	20	12	5	4	0	0	0	220

Source: CFEC Fish Tickets and NMFS Observer Data, June 2001

Table 3.2-27 displays information on employment on catcher vessels owned by regional residents, by gear/length class. Table 3.2-28 provides payment to labor information broken out by gear/length class, and Table 3.2-29 provides data on payments to labor on vessels broken out by species group.

As shown, the distribution of employment positions for the Kodiak region reflects the general distribution pattern of vessel ownership (with divergences accounted for by different crew sizes in the different classes). Payments to labor are less concentrated in vessel classes, due to differential value of species targeted by the various classes. While the 33-59′ FGCV class accounted for 54 percent of all crew members for the region in 2000, this class accounted for 32 percent of total vessel payments to labor for that same year. Examined on a species basis, Pacific cod accounted for one-half of vessel payments to labor in 2000, with ARSO and pollock accounting for approximately one-quarter each.

Table 3.2-27. Number of Crewmembers on Catcher Vessels Owned by Resident of the Kodiak Island Region, 1992-2000

Year	Number of Crewmembers									
	TCV BSP ≥ 125	TCV BSP 60-124	TCV Div. AFA	TCV Non-AFA	TCV < 60	PCV	LCV	FGCV 33-59	FGCV ≤ 32	Total
1992	0	5	54	63	44	94	66	376	44	745
1993	0	5	50	59	44	77	55	256	24	569
1994	0	5	50	63	44	77	55	292	36	621
1995	0	18	36	50	40	127	39	300	28	637
1996	0	23	32	45	40	176	39	256	36	646
1997	0	9	41	68	52	138	44	296	56	703
1998	0	14	36	59	36	121	28	324	48	665
1999	0	5	27	50	24	138	39	348	60	689
2000	0	5	27	50	12	198	17	448	80	836

Source: Estimates developed by Northern Economics based on vessel counts from CFEC/ADF&G Fish-Ticket and NMFS Observer Data.

Table 3.2-28. Groundfish Payments to Labor on Catcher Vessels Owned by Residents of the Kodiak Island Region, by Sector, 1992-2000

Year	$Millions										
	TCV BSP ≥ 125	TCV BSP 60-124	TCV Div. AFA	TCV Non-AFA	TCV < 60	PCV	LCV	FGCV 33-59	FGCV ≤ 32	GHOST	Total
1992	0.00	0.70	5.32	1.60	0.71	0.67	0.65	1.69	0.05	0.01	11.39
1993	0.00	0.45	3.28	1.46	0.56	0.81	0.46	1.38	0.05	0.00	8.46
1994	0.00	0.52	2.96	1.75	0.66	0.78	0.45	1.75	0.06	0.00	8.94
1995	0.00	2.30	2.46	1.45	0.57	1.07	0.93	2.22	0.03	0.01	11.02
1996	0.00	2.39	1.89	1.59	0.83	1.74	0.83	1.98	0.07	0.01	11.33
1997	0.00	1.32	3.42	3.92	1.31	1.85	1.47	2.47	0.08	0.01	15.85
1998	0.00	1.13	2.13	1.61	0.73	1.10	0.47	1.85	0.06	0.01	9.09
1999	0.00	0.65	2.52	2.59	0.78	1.66	0.69	3.00	0.10	0.02	12.02
2000	0.00	0.79	2.17	2.23	0.38	2.06	0.38	3.87	0.14	0.01	12.03

Note: Estimated by multiplying he number of vessels associated with the region by the regionally weighted average payments to labor--using actual value for each region would compromise confidentiality.

Table 3.2-29. Payments to Labor for Catcher Vessels Owned by Residents of the Kodiak Island Region by Species, 1992-2000

Year	$Millions				
	ARSO	FLAT	PCOD	PLCK	Total
1992	1.97	1.33	2.94	5.14	11.39
1993	1.75	0.78	2.74	3.19	8.46
1994	2.52	0.56	2.42	3.44	8.94
1995	1.69	0.69	4.70	3.94	11.02
1996	2.92	1.03	4.13	3.25	11.33
1997	3.10	2.95	5.83	3.96	15.85
1998	1.88	0.51	4.00	2.71	9.09
1999	1.79	0.24	7.07	2.92	12.02
2000	2.59	0.42	5.92	3.10	12.03

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Note: Values for Ghost Vessels have been included in the data set in order to minimize instances where data cannot be reported due to NMFS confidentiality provisions. In all cases the values for Ghost Vessels are negligible.

Table 3.2-30 provides a break-out of the geographic distribution of vessel effort, in terms of FMP subarea, for regionally owned catcher vessels. Table 3.2-31 provides vessel information specifically for pollock and Pacific cod by FMP area. As an individual vessel typically participates in more than one fishery, the subtotals exceed the total number of regionally owned vessels.

As shown, most Kodiak region owned catcher vessels direct their effort toward the Central GOA area. Relative participation in other FMP areas has varied from year to year. In 1999 and 2000, about the same number of Kodiak vessels participated in the Bering Sea groundfish fisheries as participated in the Western GOA and Eastern GOA area fisheries combined. The vessels that participate in the pollock fishery are a subset of those participating in the Pacific cod fishery.

Table 3.2-30. Number of Catcher Vessels Owned by Residents of the Kodiak Island Region, by FMP Subarea, 1992-2000

Year	Number of Vessels					
	AI	BS	WG	CG	EG	Total
1992	5	28	9	205	6	209
1993	0	18	8	144	10	148
1994	2	24	4	159	14	163
1995	2	37	18	163	21	169
1996	8	47	27	155	19	170
1997	9	37	31	177	17	191
1998	10	27	27	169	16	181
1999	11	28	13	188	16	194
2000	8	27	15	213	12	220

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.2-31. Number of Catcher Vessels Owned by Residents of Kodiak Island Region with Pacific Cod and Pollock Landings by FMP Subarea, 1992-2000

Year	Number of Vessels												
	PCOD						PLCK						PCOD & PLCK Total
	AI	BS	WG	CG	EG	PCOD Total	AI	BS	WG	CG	EG	PLCK Total	
1992	5	23	5	169	1	174	0	11	5	64	0	65	175
1993	0	15	7	110	3	114	0	7	3	38	2	38	114
1994	0	21	4	109	3	114	0	13	1	40	7	44	114
1995	0	30	9	145	6	151	1	15	3	45	3	47	151
1996	3	40	10	117	2	136	1	15	6	47	3	50	136
1997	2	29	17	163	4	178	0	14	4	73	2	79	178
1998	3	18	15	160	3	172	1	12	9	63	2	70	172
1999	7	24	7	179	5	185	0	11	0	57	0	62	185
2000	5	25	10	206	3	216	0	11	2	61	2	64	216

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.2-32 provides information on the resident catcher vessel fleet in terms of the value of the retained harvest by FMP subarea. Table 3.2-33 details this information of pollock and Pacific cod specifically.

Similar to the volume data, the value data highlight the importance of the Central GOA area to the Kodiak region resident fleet in the years since 1992. This relative importance has become more pronounced in the most recent years. There is a difference in relative importance of species between regions. Pacific cod value is heavily concentrated in the Central GOA, while pollock value is bimodally distributed between the Central GOA and the Bering Sea FMP areas.

Table 3.2-32. Ex-Vessel Value of Harvest by Catcher Vessels Owned by Residents of the Kodiak Island Region by FMP Subarea, 1992-2000

Year	$Millions					
	AI	BS	WG	CG	EG	Total
1992	0.21	7.10	0.18	20.71	0.26	28.47
1993	0.00	2.63	0.23	17.86	0.43	21.14
1994	a	3.56	0.20	17.76	0.84	22.35
1995	a	8.95	0.77	16.68	1.15	27.54
1996	0.21	8.96	1.09	16.45	1.62	28.33
1997	0.57	12.01	1.78	23.23	2.03	39.63
1998	0.37	3.64	0.97	17.04	0.71	22.74
1999	0.79	4.83	0.78	22.98	0.66	30.04
2000	0.30	4.25	1.12	23.32	1.08	30.07

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

[a] Combined with value from BS to protect the confidentiality of the small number of CVs from this region that reported catching these species during the year.

Table 3.2-33. Ex-Vessel Value of Pacific Cod and Pollock Landings by Catcher Vessels Owned by Residents of the Kodiak Island Region by FMP Subarea, 1992-2000

Year	$Millions												
	PCOD						PLCK						PCOD & PLCK Total
	AI	BS	WG	CG	EG	PCOD Total	AI	BS	WG	CG	EG	PLCK Total	
1992	0.01	0.40	0.08	6.87	b	7.36	0.00	5.33	0.07	7.46	0.00	12.85	20.21
1993	0.00	0.74	0.20	5.90	b	6.84	0.00	1.83	a	6.14	a	7.97	14.81
1994	0.00	1.25	0.14	4.65	b	6.04	0.00	2.11	a	6.20	0.28	8.60	14.64
1995	0.00	2.35	0.22	9.12	0.05	11.74	a	6.60	a	3.24	a	9.84	21.58
1996	a	3.41	0.22	6.60	b	10.32	a	5.36	0.54	2.23	b	8.13	18.46
1997	a	4.24	0.61	9.50	0.01	14.58	0.00	4.40	0.21	5.29	b	9.90	24.48
1998	a	1.23	0.48	8.01	b	10.00	a	2.22	0.11	4.43	b	6.76	16.77
1999	0.66	1.72	0.30	14.97	0.01	17.67	0.00	3.03	0.00	4.26	0.00	7.29	24.97
2000	0.10	0.66	0.47	13.55	b	14.79	0.00	3.44	a	4.32	a	7.75	22.55

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

[a] Combined with value of BS to protect the confidentiality of the small number of CVs in the region that reported catching these species in this subarea during the year.

[b] Combined with value of WG to protect the confidentiality of the small number of CVs in the region that reported catching these species in this subarea during the year.

Table 3.2-34 provides information on value of harvest broken out by gear and length vessel class. Table 3.2-35 provides information on retained catch by regionally owned catcher vessels, by groundfish species. Table 3.2-36 provides parallel value information for these vessels.

Several features of the Kodiak region owned fleet are apparent from these tables. The 33-59′ FGCV class had an ex-vessel value nearly double any other class. Pollock accounted for over one-half of retained volume of groundfish for all regionally owned vessels in 2000, but only about one-quarter of the ex-vessel value that same year. Pacific cod accounted for approximately one-half of total groundfish value. ARSO, while accounting for about 10 percent of volume, accounted for 20 percent of value. Flatfish, with a harvest volume similar to that of ARSO, accounted for only 3 percent of value.

Table 3.2-34. Ex-Vessel Value of Catcher Vessels by Sector from the Kodiak Island Region, 1992-2000

Year	Value of Catcher Vessels by Sector ($Millions)										
	TCV BSP ≥ 125	TCV BSP 60-125	TCV Div. AFA	TCV Non-AFA	TCV < 60	PCV	LCV	FGCV 33-59	FGCV = 32	GHOST	Total
1992	0.00	1.75	13.30	3.99	1.78	1.67	1.61	4.22	0.13	0.02	28.47
1993	0.00	1.12	8.19	3.65	1.41	2.04	1.15	3.46	0.12	0.01	21.14
1994	0.00	1.31	7.40	4.38	1.64	1.96	1.13	4.38	0.14	0.01	22.35
1995	0.00	5.74	6.14	3.62	1.42	2.67	2.32	5.54	0.07	0.02	27.54
1996	0.00	5.97	4.74	3.98	2.08	4.35	2.08	4.94	0.17	0.02	28.33
1997	0.00	3.30	8.54	9.80	3.28	4.63	3.67	6.18	0.20	0.02	39.63
1998	0.00	2.83	5.32	4.03	1.84	2.74	1.18	4.61	0.15	0.02	22.74
1999	0.00	1.62	6.31	6.48	1.95	4.15	1.72	7.51	0.24	0.06	30.04
2000	0.00	1.97	5.44	5.57	0.94	5.15	0.94	9.68	0.35	0.03	30.07

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

Note: Ex-vessel values shown reflect the adjusted average earned by each class multiplied by the number of vessels owned by residents of the region. Regional adjustment factors were employed to account for relative productivity differences among regions.

Table 3.2-35. Retained Tons of Groundfish by Catcher Vessels Owned by Residents of the Kodiak Island Region by Species, 1992-2000

Year	Thousands of Tons				
	ARSO	FLAT	PCOD	PLCK	Total
1992	2.5	9.7	15.4	52.8	80.3
1993	2.2	6.3	17.4	51.5	77.4
1994	2.4	4.5	16.5	52.1	75.5
1995	1.6	6.0	26.3	49.2	83.2
1996	4.2	7.2	24.8	46.2	82.5
1997	4.9	11.5	30.6	43.9	90.8
1998	4.4	4.5	24.5	47.6	81.0
1999	3.5	2.2	27.5	36.3	69.5
2000	5.9	5.6	18.9	32.2	62.7

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Note: Values for Ghost Vessels have been included in the data set in order to minimize instances where data cannot be reported due to NMFS confidentiality provisions. In all cases the values for Ghost Vessels are negligible.

Table 3.2-36. Ex-Vessel Value of Harvest by Catcher Vessels Owned by Residents of the Kodiak Island Region, 1992-2000

Year	$Millions				
	ARSO	FLAT	PCOD	PLCK	Total
1992	4.93	3.33	7.36	12.85	28.47
1993	4.37	1.96	6.84	7.97	21.14
1994	6.30	1.41	6.04	8.60	22.35
1995	4.22	1.74	11.74	9.84	27.54
1996	7.29	2.58	10.32	8.13	28.33
1997	7.76	7.38	14.58	9.90	39.63
1998	4.69	1.28	10.00	6.76	22.74
1999	4.48	0.59	17.67	7.29	30.04
2000	6.47	1.06	14.79	7.75	30.07

Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Note: Values for Ghost Vessels have been included in the data set in order to minimize instances where data cannot be reported due to NMFS confidentiality provisions. In all cases the values for Ghost Vessels are negligible.

Table 3.2-37 provides information on the specific location of the regionally owned fleet. This, in turn, provides an indication of the subregional distribution of catcher vessel-related harvest volume and value as well as employment.

As shown, for the Kodiak region, Kodiak City vessels account for almost 9 out of 10 regionally owned vessels, and 95 percent of the total value of landed catch by regionally owned vessels. While Old Harbor and Ouzinkie account for 6 and 3 percent of the regional fleet, respectively, no other community outside of Kodiak City accounts for more than 2 percent of the regional fleet. No community outside of Kodiak City accounts for more than 2 percent of regional fleet harvest value. This type of single community concentration of harvest vessels and value is not found in any other region.

Table 3.2-37. Community Rankings by Alaska Groundfish Catcher Vessels Owned by Residents of the Kodiak Island Region, 1992-2000

City	Total Value a	No. of Vessels
	Percent of Region Total	
Kodiak	95.1	87.0
Old Harbor	2.0	5.8
Ouzinkie	1.3	3.4
Port Lions	0.8	1.9
Larsen Bay	0.8	1.9

Note: Communities are ranked based on each community's percent of the historical total value for the region.

a Total value percentage for each community is based on average revenue of each catcher vessel by type and adjusted using regional-adjustment factor.

3.2.9 Harvest Diversity

Table 3.2-38 provides information on the relative value of groundfish and non-groundfish species (salmon, crab, halibut, other) to regionally owned catcher vessels for the years 1999 and 2000. In addition to showing annual totals, this information is presented on a monthly basis to show the 'annual round' of the fisheries, and to allow a consideration of the changing relative importance of the different species complexes during different times of the year. Table 3.2-39 provides a summary break-out of the relative value of non-groundfish species on an annual basis for the period 1992-2000. Figures 3.2-5 and 3.2-6 depicted the same information. This provides an easy comparison of the relative worth to owners of these species. Table 3.2-40 provides a count of regionally owned groundfish vessels participating in the non-groundfish fisheries by species for 1992-2000, which is illustrated in Figure 3.2-7. As individual vessels typically participate in more than one fishery, the subtotals exceed the total number of regionally owned vessels.

For the Kodiak region in 1999, as shown, groundfish accounted for 41 percent of total value, and halibut accounted for 26 percent of total value for these vessels. Crab comprised 25 percent, salmon 8 percent, and "other" less than 1 percent of total value respectively. (The 2000 total data are problematic because halibut figures are missing from the available data set.) Among non-groundfish species, crab and halibut have each been the most valuable in recent years. More groundfish vessels by far fish in the halibut fishery than other non-groundfish fisheries.

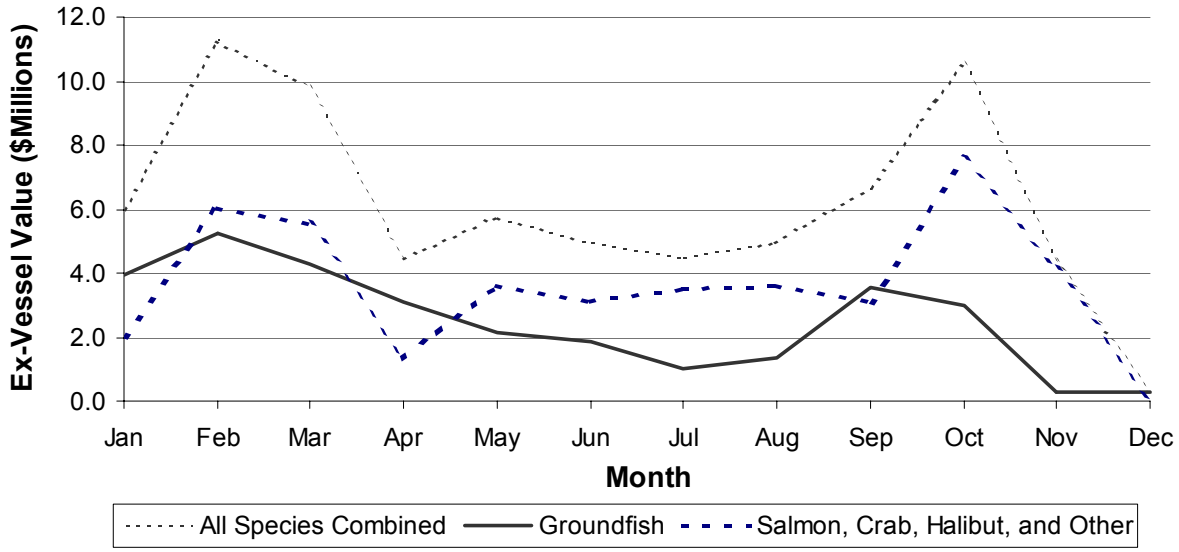
Table 3.2-38. Ex-Vessel Harvest Value of Groundfish, Salmon, Crab, Halibut, and Other Species by Residents of the Kodiak Region, by Month, 1999-2000

Year	Species	$Millions												
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
1999	Salmon	0.00	0.00	0.00	0.00	0.00	1.32	2.17	2.00	0.21	0.00	0.00	0.00	5.71
	Crab	2.03	6.02	4.19	0.30	0.22	0.00	0.01	0.04	0.04	5.22	0.00	0.00	18.08
	Halibut	0.00	0.00	1.33	1.00	3.25	1.78	1.29	1.59	2.76	2.25	4.10	0.00	19.37
	Other	0.00	0.00	0.00	0.05	0.15	0.00	0.01	0.00	0.06	0.11	0.01	0.00	0.39
	Groundfish	3.96	5.23	4.28	3.09	2.15	1.86	1.03	1.36	3.57	2.97	0.30	0.27	30.04
2000	Salmon	0.00	0.00	0.00	0.00	0.00	1.77	1.75	1.49	0.13	0.00	0.00	0.00	5.14
	Crab	0.00	0.00	0.00	6.85	0.86	0.00	0.03	0.37	0.68	3.84	0.68	0.08	13.38
	Halibut	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.12	0.14	0.00	0.06	0.00	0.05	0.14	0.00	0.00	0.52
	Groundfish	4.65	7.92	4.18	2.22	1.82	1.07	2.80	1.67	1.88	1.22	0.42	0.23	30.07

Source: CFEC/ADF&G Fish Tickets from NPFMC, June 2001

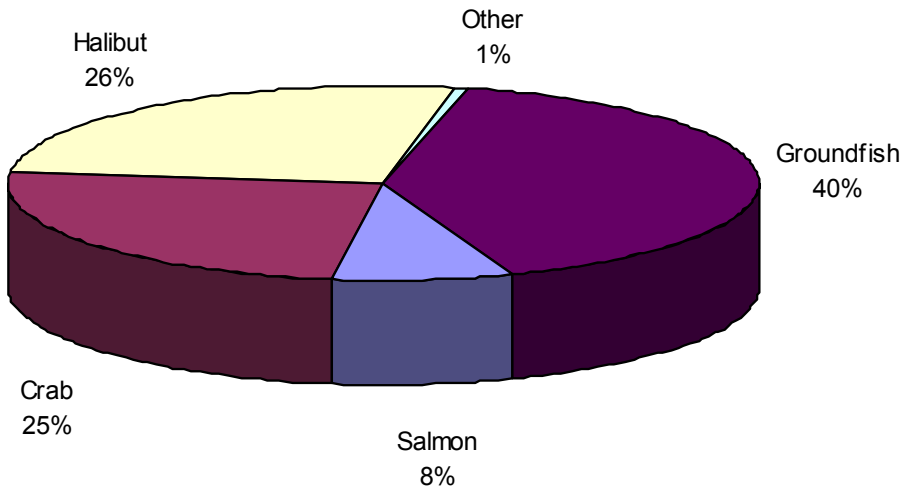
Note: Halibut data are missing from the 2000 database.

Figure 3.2-5. Ex-Vessel Harvest Value of Groundfish, Salmon, Crab, Halibut, and Other Species by Residents of the Kodiak Region, 1999



Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

Figure 3.2-6. Percent of Total Ex-Vessel Harvest Value by Residents of the Kodiak Region, 1999



Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

Table 3.2-39. Ex-Vessel Value of Non-Groundfish Harvested by Groundfish Vessels Owned by Residents of the Kodiak Island Region, by Species, 1992-2000

Year	$Millions				
	Salmon	Crab	Halibut	Other	Total
1992	6.14	19.16	5.49	1.11	31.89
1993	3.19	11.06	6.45	0.86	21.56
1994	2.64	10.14	8.99	1.06	22.83
1995	5.65	17.32	9.39	1.60	33.96
1996	2.59	14.08	12.02	2.18	30.87
1997	2.89	9.92	17.25	1.34	31.40
1998	5.97	10.42	10.43	0.89	27.71
1999	5.71	18.08	19.37	0.39	43.54
2000	5.14	13.38	0.00	0.52	19.04

Source: CFEC/ADF&G Fish Tickets from NPFMC, June 2001

Note: Halibut data are missing from the 2000 database.

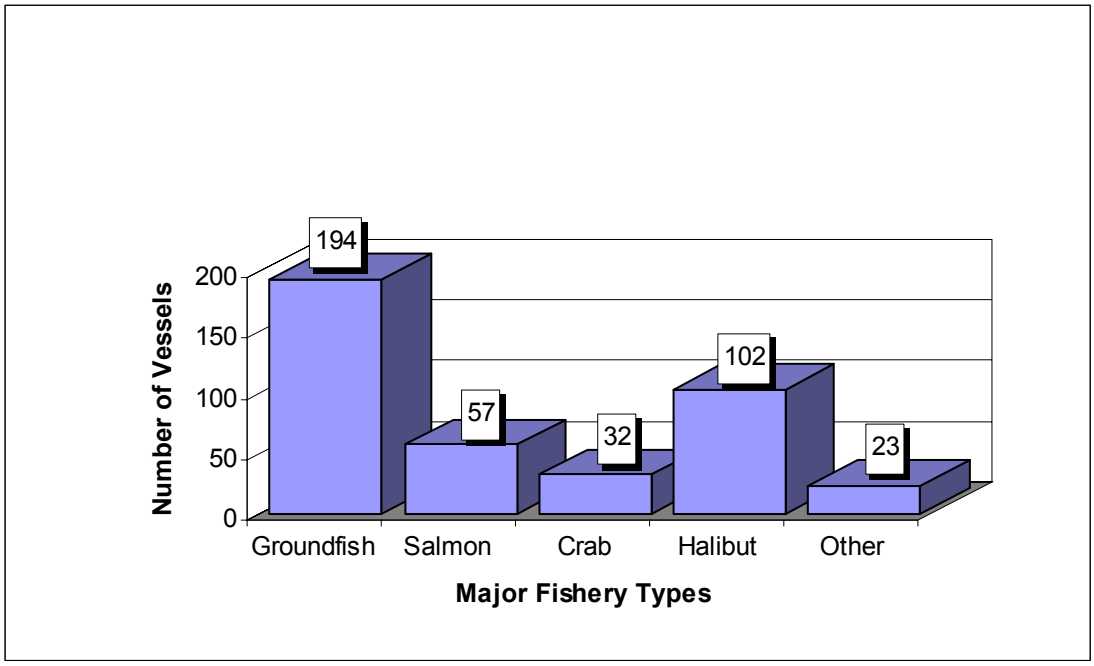
Table 3.2-40. Number of Groundfish Vessels Owned by Residents of the Kodiak Island Region Participating in Non-Groundfish Fisheries, by Species, 1992-2000

Year	Number of Vessels				
	Salmon	Crab	Halibut	Other	Total
1992	69	93	170	45	194
1993	39	82	128	23	137
1994	46	76	142	26	151
1995	52	36	97	33	135
1996	44	38	94	39	132
1997	55	34	106	42	143
1998	62	27	87	23	138
1999	57	32	102	23	150
2000	78	38	0	16	118

Source: CFEC/ADF&G Fish Tickets from NPFMC, June 2001

Note: Halibut data are missing from the 2000 database.

Figure 3.2-7. Number of Groundfish Vessels Owned by Residents of the Kodiak Island Region Participating in Non-Groundfish Fisheries, by Species, 1999



Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

3.2.10 Processing Diversity

Table 3.2-41 provides information on processor diversity across groundfish, salmon, crab, halibut, and other non-groundfish fisheries by enumerating processors present in the region. Table 3.2-42 displays information on ex-vessel value paid by all shorebased processors in the region, using the same species grouping as in the previous table. Figures 3.2-8 and 3.2-9 illustrate these same data.

For the Kodiak region, in 1999, 93 percent of the processors processed halibut, and 80 percent processed groundfish. Two-thirds of the plants processed salmon. Crab and other non-groundfish species were processed by 27 and 47 percent of processors, respectively. (The 2000 data are problematic for analysis because halibut is missing from the data set.) In terms of ex-vessel value, in 1999 groundfish accounted for 43 percent of total regional value paid. Salmon comprised 33 percent of the total value, while halibut, crab, and non-groundfish accounted for 19 percent, 4 percent, and 1 percent, respectively.

Table 3.2-41. Total Number of Groundfish and Non-Groundfish Shorebased Processors in Kodiak Island Region by Species, 1992-2000

Year	Number of Processors					
	Groundfish	Salmon	Crab	Halibut	Other	Total
1992	15	15	11	11	10	18
1993	14	16	10	12	10	19
1994	13	13	8	11	12	18
1995	13	13	8	13	9	20
1996	11	11	4	12	8	15
1997	11	11	4	10	10	15
1998	9	10	5	10	8	13
1999	12	10	4	14	7	15
2000	11	11	4	0	7	13

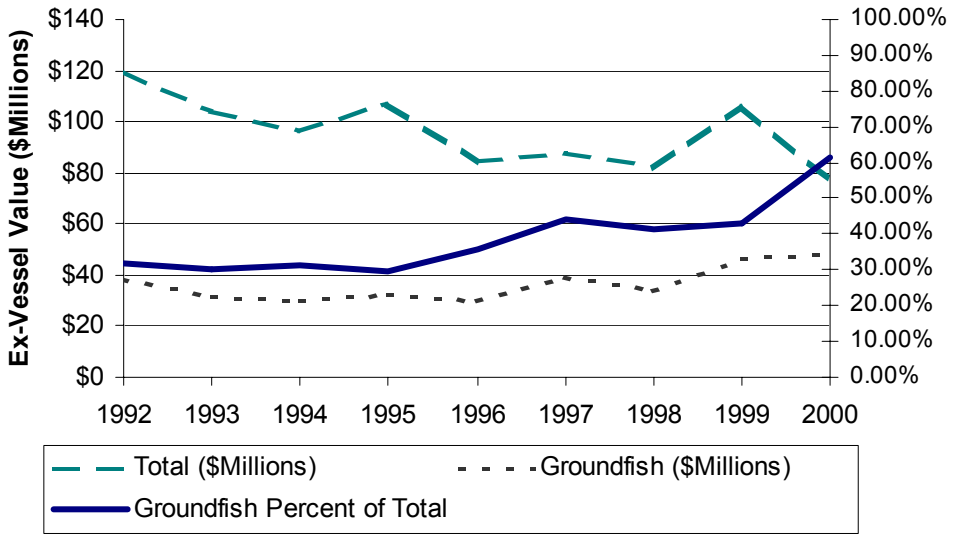
Notes: Includes all shore based facilities in the region including facilities that did not process groundfish. Data for halibut in 2000 were not available in time for inclusion.
Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Table 3.2-42. Ex-Vessel Value Paid by All Processors In Kodiak Island Region by Species, 1992-2000

Year	$Millions					
	Groundfish	Salmon	Crab	Halibut	Other	Total
1992	38.4	54.1	11.3	12.1	3.9	119.7
1993	31.4	47.5	8.8	11.9	4.5	104.1
1994	30.1	36.3	8.1	17.6	4.4	96.4
1995	31.8	52.8	4.1	14.3	3.9	107.0
1996	30.0	28.2	3.5	16.5	6.3	84.4
1997	38.8	21.2	2.8	23.4	1.3	87.5
1998	33.7	34.8	1.7	10.7	0.9	81.8
1999	45.8	34.9	4.4	20.6	0.9	106.7
2000	47.4	22.1	7.0	0.0	0.9	77.4

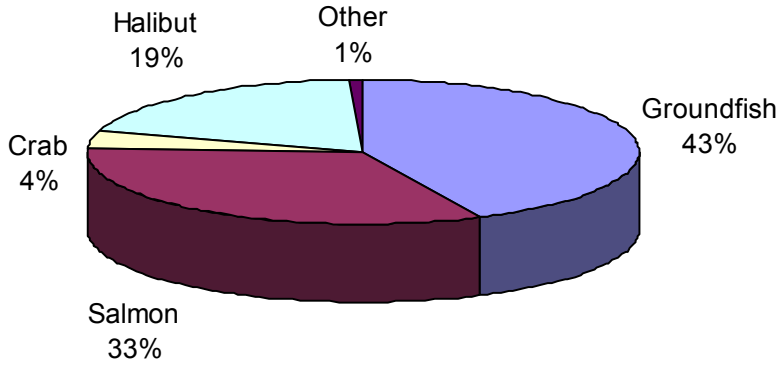
Notes: Includes all shore based facilities in the region including facilities that did not process groundfish. Data for halibut in 2000 were not available in time for inclusion.
Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001

Figure 3.2-8. Ex-Vessel Value Paid by All Processors in Kodiak Island Region, by Species, 1999



Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

Figure 3.2-9. Percent total of Ex-Vessel Value Paid by All Processors in Kodiak Island Region, by Species, 1999



Source: CFEC/ADF&G Fish Tickets and NMFS Observer Data, June 2001.

3.2.11 Subsistence in the Kodiak Island Region

As noted, Kodiak is the single regionally important groundfish community. Residents of the City of Kodiak are reported to harvest and consume about 151 pounds of subsistence resource per capita, based on a 1993 survey of an estimated 1994 year round households for a total ADF&G effective population of 6,058 individuals (ADF&G 2000). Of the consumption total, 32 percent was salmon, 40 percent was non-salmon fish, 15 percent was land mammals, 6 percent was marine invertebrates, and 7 percent was vegetation. Various groundfish are a component of the non-salmon fish and average

about 8 percent of the total (12 pounds per capita). The major contributors to this component are cod (4.8 pounds), rockfish (3.6 pounds), and greenling (2.4 pounds).

3.2.12 Regionally Important Groundfish Communities: Kodiak

In the Kodiak region, only the City of Kodiak has virtually all of the direct links with the groundfish fishery within the region, so it will be the only community discussed in detail. The most notable exception to this generalization is that processing plant data does show that groundfish are also run at Atilak, but this is a relatively specialized operation and very small relative to the aggregated operations associated with the City of Kodiak. The discussion in this section will draw upon previous profiles (IAI 1991, Northern Economics et al. 1994, IAI 1994) as well as more current information from the Groundfish SEIS and field interviews.

Kodiak's identity is that of a fishing community. Through time, both its fishermen and processors have developed a dependency upon groundfish (summarized below), but a singular characteristic of both sectors is the participation in many different fisheries. That is, many participants display a wide diversification in their fishery operations. This section will focus on their participation in the groundfish fishery, and on linkages between the community and the groundfish fishery.

Commercial fish processing in the Kodiak region began on the Karluk spit in 1882. Not long after that, canneries were established in the community of Kodiak. While the quantity and form of shore processing plants in Kodiak has changed, this sector remains an influential component of the fishing industry that is, in turn, fundamental to the community and its economy.

Shore processing facilities or "canneries" in the Kodiak region concentrated primarily on salmon and herring prior to 1950, although there was a cold storage facility at Port Williams where halibut was frequently landed. As their common name suggests, the product produced was most often canned fish. Cannery operations expanded in the 1950s to accommodate King crab processing. Thirty-two processors processed 90 million pounds of crab in 1966. In the following years, there was some growth within the sector; for example, one new shore plant was built in Kodiak in 1968. Declining harvest levels, however, prompted several shore plants to move their operations during the late 1960s and early 1970s to Unalaska/Dutch Harbor in the Aleutian Islands, closer to the larger supply of Bering Sea-Aleutian Island King crab. This move also diverted some of the crab which had previously been taken to Kodiak for processing, and the number of shore plants in Kodiak declined by more than half. A temporary resurgence in the Kodiak red King crab stocks in the mid-to-late 1970s instigated expansion of existing plants once again, and fostered the building of two new plants in Kodiak. Larger freezing capacity was a notable addition to most of the shore plants. This allowed flexibility in storing larger volumes and processing more species into more diversified products. Larger docks also became important to the processors so that they could unload more boats in a given amount of time. With a larger overall capacity to process fish, competition by the plants for the fish resource increased, and the rate of return for individual shore plants declined. Diminishing crab stocks as the fishery entered the 1980s compounded this problem. After a record catch in 1980, the Kodiak King crab stocks crashed. Several factors, including over harvesting and natural conditions, have been cited by fishermen and scientific sources as contributors to this collapse. There has not been a red King crab opening in the Gulf of Alaska since 1982. Waters around Kodiak still produce tanner and Dungeness crab fisheries, and Kodiak shore plants process these species in addition to the few deliveries of crab they receive from boats returning from the Bering Sea fishery.

When King crab stocks started to crash in the late 1960s, some of the Kodiak plants sought to diversify. At least one plant added facilities to separate the previously dominant crab line; and the main plant was then converted into a shrimp plant. Other plants report they "evolved into shrimp" to augment their crab production. Kodiak shrimp landings peaked in 1971, and stocks crashed in the late

1970s. The reason, while not definitive, may have been related to predation by large stocks of cod and pollock. Between 1978 and 1981, several Kodiak processing plants stopped shrimp production.

Efforts to fish Dungeness crab along the Kodiak coastline were slower to intensify, and landings peaked in 1981. At about the time when the Kodiak shore plants started processing shrimp, the bairdi tanner crab fishery "started to become a reality," but the tanner crab seasons, like the seasons of other crab species, soon became shorter and less productive. Many of the plants maintained halibut production lines while they were processing crab, shrimp, and salmon. At that time, halibut processing was not the intense activity it was to become under the Olympic open access system. The season was open most of the year and there were relatively few boats fishing it. As the crab and shrimp faded as viable resources to maintain shore-plant production, salmon became much more important to the processing companies in Kodiak, as they continued looking for products to fill the gaps in their production.

The provisions of the Magnuson Act of 1976 gradually expelled the foreign fleets capitalizing on the groundfish fishery within the Gulf of Alaska EEZ, while American boats and processors entered the fishery. By the late 1970s a few Kodiak shore plants, according to one plant manager, started experimenting with groundfish resources "because there wasn't much crab to do." However, the majority of the groundfish caught prior to 1988 was processed aboard foreign vessels, first by wholly foreign operations, and then by joint ventures where American boats delivered to floating foreign processors. One informant described the late 1970s and 1980s as years of "forced" diversification:

> In that same time period [late 70s-early 80s] we started playing around with halibut and black cod, and very early playing around with other groundfish, and then in the mid-80s we got a lot more serious, and then in 1988 we built the new factory for surimi. It's pretty easy to see that we were kind of just forced into it. I mean, if you wanted to stay in the fish business you got into groundfish because that is all there was. And of course during that whole period, we continued to process salmon and herring and other products that were available to us.

Plant and dock expansions fostered their ability to further utilize groundfish resources. The first surimi production in Alaska took place in Kodiak in 1985 with the aid of an Alaska Fisheries Development Foundation Saltonstall-Kennedy grant. Also in the mid-80s, "the State of Alaska came out with their tax credit program for getting into the groundfish, and so we fully utilized that," according to one plant operator, and his was not the only plant to do so. In 1987, a single plant processed about one-third of all the pollock that was taken out of the Gulf, but tax credits and other incentives contributed to additional effort and capitalization in the processing sector. This had limiting effects on large volumes being received by any one plant. The growth of the shore-based groundfish fishery in the Gulf of Alaska provided most Kodiak processors with products needed to keep their plants running nearly year round. Large capital investments made the capacity to process groundfish resources greater than the total amount delivered, but a number of factors have converged to change operations significantly. Changing seasons have forestalled the opportunity to run plant operations year-round or at maximum capacity for extended periods of time, and competition for the "race for fish" stimulated overcapitalization in both the harvesting and processing sectors. Inshore/Offshore-1 management measures provided protection to GOA onshore processors and the harvesters who deliver to them from preemption by the offshore sector, but even with license limitation the GOA fishery is still characterized by overcapitalization. The derby-style fishing tactics and, in particular, the large volumes of pollock that can be caught in a short amount of time with contemporary equipment and technology can effectively "plug" the shore plants. If plants increase their capacity to handle these peak demands, they are essentially "capitalizing for inefficiency" as much of this capacity will be idle for most of the year. After the implementation of the AFA in the Bering Sea, some Kodiak processors also cite the "race for history" in GOA fisheries (and especially

pollock) as an additional pressure towards inefficiency in local groundfish fisheries, in anticipation of eventual groundfish rationalization of some sort in the GOA.

The development or evolution of the Kodiak harvesting fleet has essentially paralleled that of the processors to which they deliver (along with the development of a fleet component that in part or in whole participates in Bering Sea fisheries). The details and dynamics are somewhat complex, but have resulted in a fleet of multi-species, multi-gear boats (although trawlers may be somewhat more specialized, they can also switch gear or work as tenders). This versatility is especially important to harvesters as seasons have become more compressed and competition to harvest the resources has increased, although management restrictions such as license limitations or IFQs have increased the cost and perhaps reduced the possibility for such versatility. Kodiak fishermen greatly value having options and making their own decisions. Thus, both the potential benefits (generally increased stability of access and amount harvested for those who can fish) and the potential costs (increased cost for entry into fisheries and reduced flexibility) of any proposed management alternatives are generally quite clear to them.

Kodiak's economy has become increasingly diversified. The Coast Guard base, although relatively self-sufficient, contributes a great deal to the local economy. Housing has been relatively scarce since the 1980s and new house construction has been constant since that time, both to meet this demand as well as in a response to increased population and more Coast Guard personnel living off-base. The housing market is currently softer than it has been in the collective memory of most Kodiak residents, due to the problems of the fishing industry. The service sector, and especially the retail sector, has continued to grow and has become increasingly important. Fishing support services have been affected by the downturn in the fishing industry. The local timber industry is at a relative low point currently, but has been significant in the past. Education is an important economic and social component, represented by the facilities of Kodiak College and The Fishery Industrial Technology Center. The aerospace industry has the potential, through the rocket launch facility, to contribute to the economy both directly as well as more indirectly through support services and facilities provided to outside specialists who work at the launches.

Population

Table 3.2-43 provides sufficient detail to discuss Kodiak's gross population dynamics. The Russian history of Kodiak will not be discussed here. The City of Kodiak did not attain the status of the largest community on the island until about 1920 or so, and has grown steadily since then. The KIB was formed much later, and numbers for the borough are not available until 1960 when 7,174 people were enumerated. Named places within KIB only totaled 3,320 people however (mostly in the City of Kodiak). Based on present conditions, it can be assumed that most of the difference (whatever its "true" value) represented people living in the area of, but outside of the city limits of, the City of Kodiak (Linda Freed, personal communication 2001). This would account for a good deal of the sudden increase between 1950 and 1960 of the population of the "Greater City of Kodiak."

Table 3.2-43. Kodiak Island Region Population 1880-2000

Year	KIB	Greater City of Kodiak[1]	City of Kodiak	Total Hinterland[2]
1880	NA	0	0	694
1890	NA	495	495	1,334
1900	NA	341	341	623
1910	NA	438	438	655
1920	NA	374	374	343
1930	NA	442	442	444
1940	NA	864	864	589
1950	NA	1,710	1,710	567
1960	7,174	6,482	2,628	692
1970	6,357	5,358	3,798	999
1980	9,939	8,842	4,756	1,097
1990	13,309	11,610	6,365	1,699
1999	13,989	12,185	6,893	1,804
2000	13,913	12,211	6,334	1,702

[1] "Greater City of Kodiak" encompasses the City of Kodiak, Kodiak Station, and the derived unincorporated population - see text

[2] "Total Hinterland" is the total population of all named places on Kodiak Island, other than the City of Kodiak and Kodiak Station

Source: DCED, 2001.

The 2000 "unincorporated population" is 4,037 and is generally believed to approximate the population that could be considered part of the "greater City of Kodiak" area but not within its incorporated city limits. This "unincorporated" population is thus equal to about 64 percent of the city's 2000 incorporated population of 6,334. This is a dramatic relative increase, from only 50 percent in 1999, and reflects a slight increase in the "unincorporated" population and a decrease in the City of Kodiak population. An additional 1,840 people live on the Coast Guard base, which most people also consider as part of the "greater City of Kodiak" area. Together these three populations include 12,211 of the KIB's total 2000 population of 13,913, or about 86 percent. Note that this does not include Chiniak or Women's Bay (about 5 percent of the KIB's population) as part of the "Greater City of Kodiak," although it could be argued that they should be. This calculated percentage has varied from 84 to 90 percent since the formation of the KIB. Prior to that time (1880-1950) the City of Kodiak had been increasing in size relative to the other named places on the island (Table 3.2-43).

A common dynamic in fish processing towns is that the population increases seasonally, during peak harvest and processing periods. In Kodiak, this has historically occurred in summer (July and August). With the development of groundfish processing, Kodiak processors have increasingly tried to operate year-round with an increasingly resident labor force. The strong national economy has also decreased the number of people willing to come to Kodiak to work seasonally, and the cost of transporting and training such temporary employees has also increased. While such transient workers are still part of Kodiak, they had not been as significant as in the past, due to the development of a more resident processing work force. Recent trends may be for the increased employment of more transient workers. These dynamics are discussed below in terms of the processing and harvesting labor force.

Ethnicity

Kodiak is a complex community in terms of the ethnic composition of its population. Sugpiaqs (Koniags) were the original inhabitants of Kodiak Island. In the late 1700s Russian contact and their sea otter operations had devastating effects on the Native population and culture. Alutiiq is the present-day Native language. Alaska (and Kodiak) became a U.S. Territory in 1867, and a cannery opened on Karluk spit in 1867. This marked the start of the development of commercial fishing on Kodiak, although Karluk remained the largest community on the island until about 1920. Fishing and military buildup associated with WWII brought many non-Natives to Kodiak, primarily Caucasians but also a substantial number of other minorities, at least initially associated primarily with fish processing employment.

Tables 3.2-44 and 3.2-45 below present some basic time series information on ethnicity for the borough and city. While the information is not all directly comparable due to changing definitions and different sources, certain conclusions are fairly clear. Most Filipino or Asian and Pacific Islanders live in the City of Kodiak. Nearly all can be assumed to live in the immediate area of that city. They are the segment of the KIB population that is most rapidly increasing, from an unknown population in 1970 (but no more than 3 percent) to 6+ percent in 1980 to 11+ percent in 1990 to 17 percent in 2000. This supports the common community perception, and plant manager reports, that fish processing workers are more of a resident work force than in the past. The Alaskan Native population has stayed at approximately the same percentage through time, but is clearly a smaller percentage of the City of Kodiak population than it is of the KIB as a whole. The Caucasian population has declined in terms of percentage over time. Overall, there has thus been a gradual, long-term shift in ethnic composition, with Asian and Pacific Islanders increasing in percentage and Caucasians declining in percentage. Native Americans and African Americans have shown relatively little change. The U.S. Census Bureau also has collected information on people of "Hispanic Origin" and it is potentially useful as an indicator of population dynamics. Plant managers have reported that they are hiring more Hispanics than in the past, and the limited census information available supports the anecdotal information that the Hispanic population is increasing, located primarily in the City of Kodiak (KIB website). This is the same pattern and dynamic described in IAI 1991.

Table 3.2-44. Ethnic Composition of Population Kodiak Island Borough; 1970, 1980, 1990 & 2000

Race/Ethnicity	1970		1980		1990		2000	
	N	%	N	%	N	%	N	%
White	NA	-	7,046	71%	9,289	70%	8,304	59.7%
African American	NA	-	72	0%	135	1%	134	1%
Native Amer/Alaskan	NA	-	1,710	17%	1,723	13%	2,028	14.6%
Asian/Pacific Islands*	NA	-	624	6%	1,492	11%	2,342	16.8%
Other**	NA	-	283	3%	670	5%	1,105	8%
Total	6,357	-	9,939	100%	13,309	100%	13,913	100%
Hispanic***	NA	-	204	2%	669	5%	848	6.1%

Source: U.S. Bureau of Census.

* In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 110) and Asian (pop 2,232).

** In the 2000 census, this category was Some Other Race (pop 387) and Two or more races (pop 718).

*** 'Hispanic' is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).

Table 3.2-45. Ethnic Composition of Population Kodiak City; 1970, 1980, 1990 & 2000

Race/Ethnicity	1970		1980		1990		2000	
	N	%	N	%	N	%	N	%
White	3,094	81%	3,337	71%	4,028	63%	2,939	46.4%
African American	44	1%	26	1%	47	1%	44	0.7%
Native Amer/Alaskan	479	13%	573	12%	629	10%	663	10.5%
Asian/Pacific Islands*	NA	-	554	12%	1,282	20%	2,069	32.6%
Other**	116	3%	-	-	379	6%	619	9.8%
Total	3,798	100%	4,686	100%	6,365	100%	6,334	100%
Hispanic***	NA	-	196	4%	403	6%	541	8.5%

Source: U.S. Bureau of Census.

* In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 59) and Asian (pop 2,010)

** In the 2000 census, this category was Some Other Race (pop 276) and Two or more races (pop 343).

*** 'Hispanic' is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).

Table 3.2-46 provides information on group housing and ethnicity for Kodiak. Group housing in the community is largely associated with the processing workforce. As shown, only six percent of the population lived in group housing in 1990. This is a much lower percentage of population in group quarters than in the other communities profiled.

Table 3.2-46. Ethnicity and Group Quarters Housing Information, Kodiak, 1990

Kodiak City	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	4028	63.28	192	53.93	3836	63.84
Black	29	0.46	3	0.84	26	0.43
American Indian, Eskimo, Aleut	811	12.74	21	5.90	790	13.15
Asian or Pacific Islander	1282	20.14	118	33.15	1164	19.37
Other race	197	3.10	22	6.18	175	2.91
Total Population	6365	100.00	356	100.00	6009	100.00
Hispanic origin, any race	407	6.39	42	11.80	365	6.07
Total Minority Pop	2429	38.16	181	50.84	2248	37.41
Total Non-Minority Pop (White Non-Hispanic)	3936	61.84	175	49.16	3761	62.59

Source: Census 1990 Summary Tape File 2

Age and Sex

The KIB is unbalanced in terms of ratios of males to females (Table 3.2-47). The City of Kodiak shows a similar imbalance, and has been relatively stable in this regard for the period 1970-2000 (Table 3.2-48). This is characteristic of communities where at least one major economic sector disproportionately employs single members of one sex. The fishing industry has historically

employed many single males, both as harvesters and processors. Although this population has apparently become more resident (rather than transient) than in the past, evidently this has not greatly affected the overall population's sex composition. Single males are still disproportionately attracted to Kodiak, and females may tend to migrate out more than do males. IAI 1991 indicates that the male/female ratio for the Native population was approximately equal, as would be expected from a resident population. The sex ratio for Caucasians was somewhat skewed (54/46), and for Filipinos was even more skewed. This was interpreted as evidence for a relatively resident Native population, with a predominately resident Caucasian population somewhat more prone to movement in and out, and a much more mobile "other minority" population which contained a smaller percentage of family units with children. This interpretation seems to continue to apply.

Table 3.2-47. Population by Age and Sex, Kodiak Island Borough; 1990 and 2000

	1990		2000	
	N	%	N	%
Male	7,395	56%	7,362	53%
Female	5,914	44%	6,551	47%
Total	13,309	100%	13,913	100%
Median Age	NA		31.6 Years	

Source: U.S. Bureau of the Census

Table 3.2-48. Population by Age and Sex, Kodiak City; 1970, 1980, 1990, and 2000

	1970		1980		1990		2000	
	N	%	N	%	N	%	N	%
Male	2,055	54%	2,498	53%	3,496	55%	3379	53%
Female	1,743	46%	2,188	47%	2,869	45%	2955	47%
Total	3,798	100%	4,686	100%	6,363	100%	6334	100%
Median Age	NA		NA		NA		33.5 years	

Source: U.S. Bureau of the Census

Housing Types and Population Segments

Household type in Kodiak varies by population segment, although information is far from systematic in this regard. In the 1980s housing was in very short supply, and it was not unusual for complete strangers to be more than willing to share space in a marginal housing unit. Sales of houses and the rental of apartments was almost totally through word of mouth and almost instantaneous. This has changed to the point where houses are now on the market for a period of time more typical of other Alaskan urban communities before selling, although apartment vacancy rates are still lower than are private housing vacancies. Average rent for apartments is higher or equal to rent in other Alaskan urban communities, although the vacancy rate for units is higher than in places such as Anchorage, Juneau, and the Matanuska-Susitna Borough (AHFC 2001). Construction of new housing to meet the local demand has continued through the present, although it may have slowed somewhat in the recent past, and contractors are building few or no new houses on speculation. There are incentives which have encouraged the building of new housing outside of Kodiak city limits. The state will subsidize the mortgage rate one full percentage point for housing outside of the City of Kodiak. Further, undeveloped land within the current city limits is somewhat scarce.

It is recognized that fish processors tend to live in smaller structures and/or with more household members, than do people with other employment. There are sections of town or developments where certain ethnic groups or socioeconomic classes of people are concentrated. However, there are also members of these same groups scattered throughout Kodiak.

One housing dynamic that had been operating until the recent past, already mentioned above, has been that of the development of a resident processing force. Kodiak processors had been able to close down bunk houses as those attracted to Kodiak by fairly steady processing work preferred more private housing in the community. With the more recent contraction of fishing seasons and processor operating days, the processing labor force has once again become somewhat transient. Processors report that they can maintain only a smaller "core" group of employees than has been the case in the past, and several have reopened or even constructed bunkhouses of sufficient size to handle their transient peak labor needs. There are still local people who work in the processing plants on a less than full-time basis, but the pay scale associated with most processing work requires a large number of hours to support a local resident. Other than for peak processing periods most labor is still local and has some sort of local housing arrangement. Systematic information is lacking, but anecdotally the same mechanism by which people are recruited to Kodiak to work in fish processing also allows them to find a place to live. Many such workers come because they have a relative or friend who is already working in Kodiak. This person then becomes a resource to locate housing. This is also one reason that household size and household structure tends to be different for different ethnic groups in Kodiak, and is especially fluid for fish processor workers.

The Coast Guard base also affects the local housing supply in that it is "home" to close to 2,000 people. The base is reported to have been built in the 1930s as a temporary facility, and so had a large supply of substandard housing. Much of this has since been dismantled, with a substantial but not equivalent amount of new and better housing being erected on-base. Most Coast Guard personnel have the option of living off-base if they prefer, so this has increased the local demand for housing.

Seasonality of the Kodiak Economy

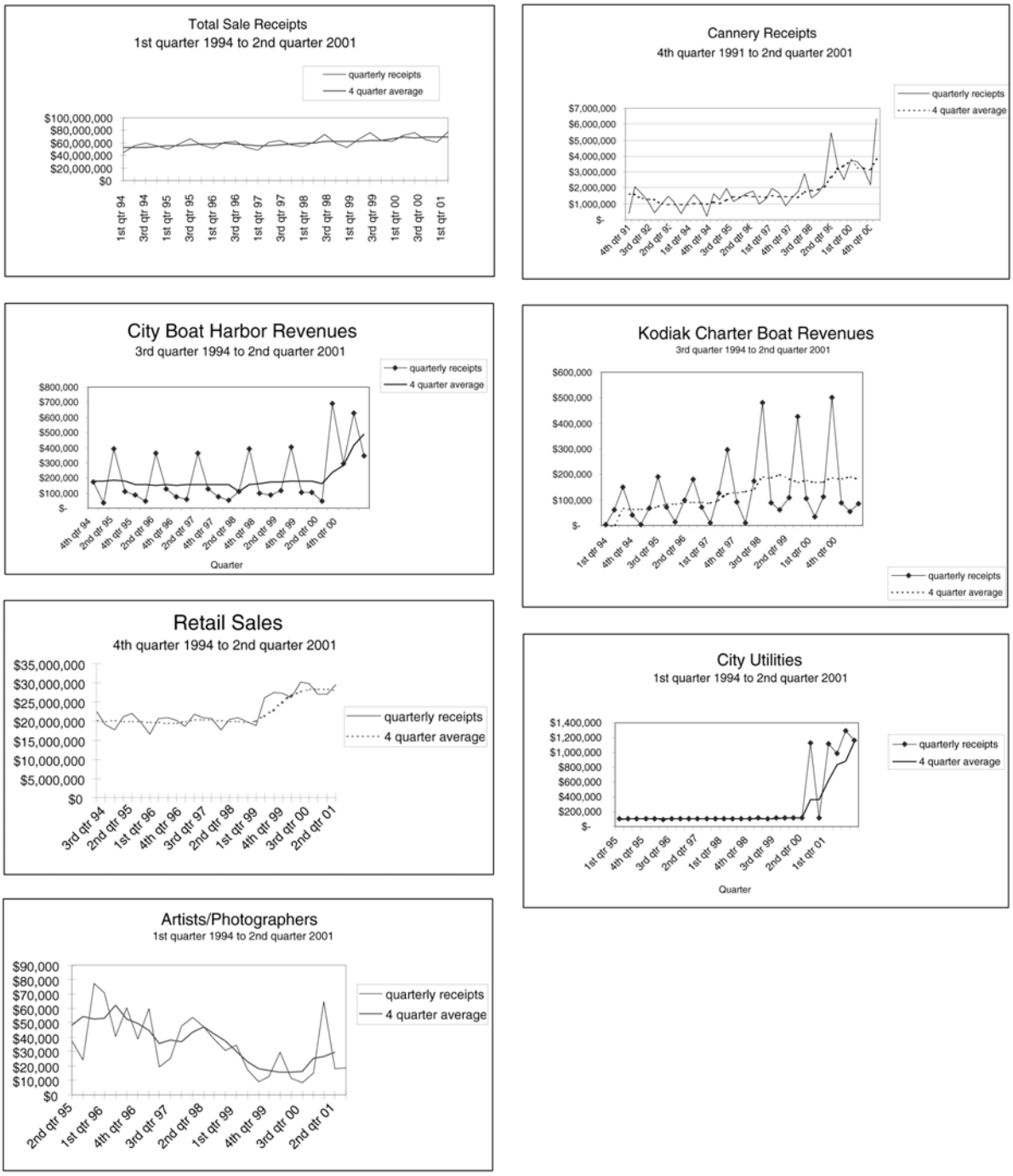
The regular and cyclical annual variation endemic to the Kodiak Island region's fishing economy was introduced in the general regional employment discussion above. This section merely wishes to reinforce this point, using the City of Kodiak as a focused example. The Kodiak Chamber of Commerce has provided city sales tax receipt information for the first quarter of 1994 through the secon quarter of 2001 (Figure 3.2-5). Graphs of tax receipts over this period, by quarter, are presented for total sales receipts and selected economic sectors. The comparison of these graphs is the basis for the following brief discussion.

Total sales tax receipts are variable in a regular, cyclical way - but within a relatively well-defined range (the high point is generally no more than 1.5 times the low point, although that range seems to be increasing through time). Cannery receipts can be seen to vary in the same way as do total sales receipts, but the fluctuation between high and low points is much more extreme (the high point is over two times the low point). City boat harbor revenues are even more extreme, but this is an artificial variation, as most long-term moorage fees and such are billed and paid on an annual basis. On the other hand, charter boat revenues are perhaps the most extreme case of true extreme seasonal variation in economic activity, from zero in the winter to a peak in the summer. As this industry also depends on fish (primarily salmon and halibut), it has the same seasonal variation pattern as does the commercial processing sector. Retail sales, on the other hand, while showing some seasonal variation in response to the variation in many of primary economic sectors, exhibits a much narrower range of variation than does total sale receipts. This is what would be expected, as a certain level of sales has to be maintained year-round to support the resident population. Sales would increase during peaks of economic activity, in proportion to the size of the peak in relation to the "base" level of sales. The city utilities graph is especially telling in this regard. The variation is less cyclical, but does exhibit some

seasonality confounded by an overall trend towards increased revenues (increased use of utilities). This is an indicator that Kodiak has been experiencing consistent growth, both in population, housing supply, and general infrastructure. The last graph can be no more than suggestive, but the decline in revenues for artists and photographers may suggest that there is less discretionary income in the community, or that such expenditures for luxury or specialty items are increasingly being spent outside of the region.

As for Sand Point, this pattern may mask some of the indications of a local economic downturn by reporting only through June of 2001. Also, Kodiak has a more robust and diversified economy than does Sand Point, and sales tax receipts are an overall economic indicator, and do not necessarily reflect the contraction of one economic sector which is countered by the expansion of another. While both Kodiak and Sand Point are the regional centers for government for their respective regions, that of Kodiak is much larger. Kodiak also has a much larger school system as well as a branch of the University of Alaska system.

Figure 3.2-10. Kodiak Seasonal Economic Fluctuations



Source: Kodiak Chamber of Commerce, 2001

Despite the relative diversification of Kodiak's economy compared to the Alaska Peninsula/Aleutian Islands groundfish communities profiled, fishery related employment is still a very large part of the local employment pool. Excluding the U.S. Coast Guard, 4 of the 5 top employers in Kodiak in 2000 were fish processors, and three more were listed in the top 20 employers (Table 3.2-49).

Table 3.2-49. Top 20 Kodiak Employers, 2000

Rank	Employer	Employment
1	Kodiak Island Borough School District	402
2	Ocean Beauty Seafoods	338
3	Trident Seafood Group	240
4	Polar Equipment (Cook Inlet Processing)	227
5	North Pacific Processors (APS)	198
6	Providence Kodiak Island Medical Center	177
7	City of Kodiak	173
8	Wal-Mart Associates	147
9	International Seafoods of Alaska	146
10	Safeway, Inc.	142
11	Global Seafoods	136
12	Western Alaska Fisheries	108
13	Kodiak Area Native Association	108
14	Space Mark International	108
15	U.S. Department of Transportation	99
16	Alaska Department of Fish and Game	77
17	Ki Enterprises (McDonald's)	66
18	University of Alaska	54
19	Kodiak Island Housing Authority	51
20	Kodiak Electric Association	51

Source: Kodiak Chamber of Commerce, October, 2001.

Links to the Groundfish Fishery

The development of commercial fishing in Kodiak was summarized above. Table 3.2-50 below displays the total volume of fish landed at Kodiak for 1984 through 2000. Kodiak has consistently ranked in the top three U.S. ports in terms of value of fish landings and in the top seven in terms of volume of landings.

Table 3.2-50. Volume and Value of Fish Landed at Kodiak, 1984-2000

Year	Pounds (millions)	U.S. Ranking	Value (millions)	U.S. Ranking
1984	69.9	7	113.6	2
1985	65.8	6	96.1	3
1986	141.2	7	89.8	3
1987	204.1	3	132.1	2
1988	304.6	3	166.3	1
1989	213.2	6	100.2	3
1990	272.5	3	101.7	3
1991	287.3	4	96.9	3
1992	274.0	3	90.0	3
1993	374.2	2	81.5	3
1994	307.7	2	107.6	2
1995	362.4	2	105.4	2
1996	202.7	5	82.3	3
1997	267.5	6	88.6	3
1998	357.6	5	78.7	3
1999	331.6	6	100.8	3
2000	289.6	6	94.7	3

Source: Personal communication from the National Marine Fisheries Service, Fisheries Statistics and Economics Division, Silver Spring, MD (accessed through NMFS Website).

Table 3.2-51 lists detailed information on total volume and value of fish landings for Kodiak for 2000 by species or species group. As shown, value of landings is dominated by Pacific cod, halibut, and salmon, which together account for 72.5 percent of the total value of all species landed. These three species account for between 23 and 25 percent of total value each, while no other species accounts for more than about 9 percent of the total. Pollock and sablefish, the next two most important species after Pacific cod, halibut, and salmon, account for 9 percent and 7 percent of the overall total, respectively. No other species accounts for more than about 2 percent of the total. Pollock, by far, accounts for the greatest volume of fish landed, with Pacific cod and salmon being quite close to each other as the second and third highest volume species (or species complex), respectively. As shown, several other groundfish species are relatively high volume species locally, but account for a relatively small proportion of the total value landed, due to relatively low values per pound.

Table 3.2-51. Fish Landed at the Port of Kodiak, by Species, 2000

Species	Pounds (thousands)	% of Total Pounds	Ex-vessel Value (dollars)	% of Total Value
Pacific Cod	64,936,708	22.4	24,030,302	25.37
Halibut	9,258,799	3.2	23,146,998	24.44
Salmon	61,800,000	21.3	21,500,000	22.70
Pollock	102,229,713	35.3	8,720,096	9.21
Sablefish	3,377,355	1.2	6,957,351	7.35
Rock Sole	10,191,805	3.5	2,061,818	2.18
Bristol Bay Red King Crab	900,536	0.3	1,707,901	1.80
Weathervane Scallops	280,568	0.1	1,662,575	1.76
Bearing Sea Snow Crab	1,451,842	0.5	1,277,621	1.35
Pacific Ocean Perch	9,008,682	3.1	729,051	0.77
Herring	2,740,000	0.9	685,400	0.72
Rockfish	9,229,389	3.2	611,210	0.64
Dungeness Crab	236,921	0.1	390,920	0.41
Flatfish	1,847,248	0.7	252,530	0.27
Flathead Sole	1,676,648	0.6	234,642	0.25
Sea Cucumbers	116,152	0.0	174,228	0.18
Rex and Dover Sole	1,167,310	0.4	132,387	0.14
Black Rockfish	251,520	0.1	108,373	0.11
Octopus	181,993	0.1	90,997	0.10
Miscellaneous/other/ unspecified (including shrimp and sea urchins)*	8,716,811*	3.6*	225,600*	2.01*
Total	289,600,000	100	$94,700,000	100

*Note: Figures in this row provided to make totals for known and unspecified species sum to reported port totals and are adjusted to account for rounding errors and species that are not reported individually due to confidentiality restrictions. Values should be taken as approximations and should not be used for comparative purposes.

Source: Adapted from data supplied by the Kodiak Chamber of Commerce, October, 2001.

The following discussion of the fishing industry is divided into the harvesting and processing sectors, as each is extremely important for the Kodiak economy and community. A third section provides some general contextual information on fishery industry support services.

Harvesting

The enumeration and geographic distribution of the groundfish catcher vessel sector is detailed in previous documents and abstracted for communities of interest for this document. The most important point in regard to the Kodiak component of this fleet is that most are multi-gear and multi-species boats. The majority of boats harvesting groundfish and crab for deliveries to Kodiak shore processors are Kodiak-based boats. Non-local boats from Newport or Seattle augment the trawl and longline fleets. One recent development, with the shift of GOA pollock quota from areas 610 and 620 to the Shelikof Area has been the temporary transfer of some boats from the Trident plant in Sand Point to the Trident plant in Kodiak.

Vessels in this fleet usually have a handshake agreement with a shore processor for the delivery of fish. The vessel is said to "work for" the shore plant and sometimes the plant operators refer to "their boats" meaning those with which working relationships exist. These vessels deliver to that plant on a

regular basis. The size and composition of processor fleets vary, depending on the plant's capacity and product mix. Most of the boats that deliver to Kodiak processors are multi-purpose vessels that can change fisheries to meet the current market and fishing circumstances. For example, some vessels will switch between crab, halibut, and cod or crab, halibut, and pollock. One vessel reported that he fished for in excess of 20 species with three different types of gear. The size of a processor's fleet depends on what season it is and what they are targeting at the time. It is not uncommon, however, for a plant to have a fleet of 8 to 16 boats fishing groundfish and crab. If a plant processes pollock, they usually have a fleet of 4 to 10 trawlers, and more often 8 to 10. Most plants also have 6 to 10 fixed-gear vessels in their fleet. Most of the fixed gear boats are pot boats fishing for Pacific cod and/or tanner crab. There is a small fleet which fishes for Dungeness crab as well.

Fleet sizes are smaller now than they were when shellfish was a larger part of production. Prior to the implementation of the AFA in the Bering Sea, we were told that the GOA pollock (and flatfish) fleet tended to cooperate in an effort to balance deliveries to maintain high levels of production. This was a somewhat unique relationship to develop in an open access fishery, but was a form of industry-developed "rationalization" to counter some of the inherent inefficiencies of a high volume/low value fishery with excess capacity. Ideally, the plants want just the right amount of boats to keep production lines busy all of the time, but with a trawl fleet's capacity to catch groundfish, its harvest can easily exceed its processor's capacity. After the implementation of AFA in the Bering Sea, Kodiak processors have reported that this arrangement is, in essence, no longer in effect. With the anticipation of eventual pollock (and other groundfish) rationalization in the GOA, a "race for history" in the GOA has resulted, with at least one new processing entrant and a host of wasteful and inefficient practices (see processing discussion below).

The exchange of product between fishermen and processors continues to be largely dependant upon what kind of relationship the boat operator has with the plant. According to one plant staffer, when a fisherman comes to talk to a processor, he has several main concerns. He wants to know how he's going to get in to make deliveries and if he is going to be able to deliver all the fish that he can catch. He does not want to have to wait to deliver fish because the processor has too many other boats delivering as well.

A reliance on flexibility and adaptability in the fishing industry has caused boats to become very good at converting from one gear type to another, if they have the gear available. In the mid-1980s this did not happen frequently, but it is easier and more common now (subject to license limitation and other management measures). While boats may switch from one gear-type to another, operators usually deliver to the same processor. If a new operator comes aboard, the vessel may or may not change delivery sites, depending on the established relationships of the vessel owner/operator to processor.

Within the trawl fleet, there are conversions too. There is a switch in nets for midwater or pelagic trawling to bottom trawling when going from pollock to cod. Almost everybody who trawls has both types of nets. Medium-sized and the small trawlers (usually those less than 70 feet in length) will make a conversion as soon as tanner season is closed, but the bigger Kodiak trawlers, those in the 80-120-foot range, will usually leave their trawl gear on and not make any conversions, unless they are going tendering for salmon or herring. It wasn't that long ago that they could trawl the better part of the year, so a number of them sold their pots and abandoned the fixed-gear fishery. Also, The Kodiak area tanner quota has been so small in recent years that the bigger boats can't justify going out.

Generally speaking, fishermen stay with one company although there is no formal (written) contract to bind this relationship. Boats will usually try to set up some sort of a market before they leave the dock, although that depends, somewhat, on who's operating the boat and what kind of relationship he has with the plant. Often a plant will help find a market for a load it cannot use from one of its "regular" boats, especially for a high volume/low value species like pollock, or one that requires more time to process, such as flatfish.

Shore plants also provide certain services as inducement to do business. In general, the production capacity in Kodiak to process fish far exceeds the amount of product currently available, so all the processors in town are in competition with each other for available product. As a result, things like being able to provide a tendering contract serve as incentives for fishermen to do business with a certain plant. Providing gear storage for fishermen is an incentive. Providing a line of credit - if a fisherman's short on funds and needs to buy gear or equipment - is another inducement the local processors sometimes offer to a fisherman.

For some vessel operators, these tendering contracts are not only lucrative, but they become an important part of the total yearly income for vessels. Consequently, maintaining the handshake agreement to deliver groundfish when the processors need it most can be rewarded with a tendering contract that is important to the fishermen.

Most of the Kodiak CV fleet is overwhelmingly GOA-oriented. While Kodiak CVs have more of a presence in the BSAI pollock fishery than for the other species (in terms of pounds harvested and dollars earned), the GOA is still clearly where most Kodiak boats fish. It is this orientation, and their position as harvesters of the GOA, that Kodiak fishermen wish to protect, and which they fear may be adversely affected by the changes in the fishery associated with ongoing adaptations to AFA related management.

Processing

In early 2000, there were six or seven (one was very new to Kodiak and was not available to provide information) plants processing groundfish in Kodiak. Interviews conducted in 2001 confirmed that seven plants processed groundfish, and that the new entrant was actively competing for all species. Other non-groundfish processors also exist. While capable of continuously processing large volumes, actual production, of course, varies during the year. Plants will add a shift, hire additional employees, and maximize processing and freezing capabilities during various seasons and season overlaps; various species require separate processing lines, machinery, and crews. At other times, especially during the later months of the year, the plants have little, if anything, to process, so they must layoff employees and attempt to minimize their overhead costs. Tables 3.2-52 and 3.2-53 show the aggregated volume and value, respectively, of the species processed in Kodiak by year for the period 1993-2000. With the exception of salmon, which is processed at several different locations within the KIB, nearly all of this activity takes place within the City of Kodiak.

Table 3.2-52. Volume of Groundfish Processed by Kodiak Shoreplants, by Species Group and Year, 1993-2000

Species	1993	1994	1995	1996	1997	1998	1999	2000
Salmon	105,954,109	42,512,087	150,212,021	38,480,944	47,096,755	85,182,682	63,097,929	60,096,447
Halibut	9,886,361	8,959,621	7,345,008	7,396,190	10,673,472	8,398,551	8,269,475	See Note
Crab	5,110,307	2,863,187	1,832,762	1,675,086	1,164,703	1,148,083	1,284,728	2,504,560
Herring	8,886,771	5,845,320	4,998,580	5,868,669	5,336,494	2,482,571	1,985,822	2,080,860
Other Non-GF	106,458	384,948	168,940	206,174	175,448	181,668	137,575	116,912
Pollock	155,412,622	163,440,241	65,393,556	45,996,042	83,781,584	164,936,160	129,788,161	106,386,467
Other GF	75,932,965	57,408,356	92,397,635	90,887,954	113,031,829	105,863,668	112,819,856	114,519,388
Total	361,289,593	281,413,760	322,348,502	190,511,059	261,260,285	368,193,383	317,383,546	285,704,634

Note: Halibut numbers not available for 2000

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

Table 3.2-53. Value of Groundfish Processed by Kodiak Shoreplants, by Species Group and Year, 1993-2000

Species	1993	1994	1995	1996	1997	1998	1999	2000
Salmon	$30,919,937	$19,837,476	$41,353,791	$21,319,667	$16,552,661	$26,327,348	$28,587,045	$18,448,920
Halibut	$11,705,472	$16,874,425	$14,228,126	$16,144,982	$22,115,588	$10,254,625	$17,374,278	See Note
Crab	$8,840,233	$7,149,258	$4,124,565	$3,463,420	$2,775,965	$1,704,518	$4,414,024	$7,026,046
Herring	$2,583,290	$1,614,485	$2,815,598	$4,595,484	$941,584	$517,132	$608,933	$566,940
Other Non-GF	$83,036	$415,673	$143,154	$246,052	$193,067	$190,220	$146,081	$174,606
Pollock	$11,501,119	$12,625,509	$6,670,763	$4,369,377	$8,625,741	$11,190,308	$12,311,467	$12,255,024
Other GF	$18,421,120	$17,180,178	$25,630,081	$24,708,464	$28,861,917	$21,660,833	$32,556,598	$28,857,786
Total	$84,054,207	$75,697,004	$94,966,078	$74,847,446	$80,066,523	$71,844,984	$95,998,426	$67,329,322

Note: Halibut Numbers are not available for 2000.

Source: CFEC/ADF&G Fish-Ticket and NMFS Observer Data. June, 2001.

In the words of one long-time Kodiak fisherman, "Our key is to be able to diversify, but it is still tough to make it." This ability to diversify has become paramount to both the fishermen and the processors of Kodiak. Shore-based plants have added crews, space, freezers, equipment, and searched for new markets as fishermen have been seeking, entering, and participating in pulse fisheries that feature wildly variable deliveries. Occasionally when open fisheries are exploited by new entrants, new products emerge. While this includes previously unexploited resources such as sea cucumbers or snails, it also includes variations of existing resources. Pacific cod harvested in pot gear is such an example.

Processors differ in the degree to which they actually do diversify their operations, but all those plants which process groundfish agree that it is essential for their plants. It is the highest volume component and provides essential employment for their work crews. Without groundfish these plants could not provide enough work to support their crews as Kodiak residents. Several plant managers made the same point about the other species they processed as well, although groundfish was perhaps considered a fundamental base of operations (up to 80 percent of most operations). Similarly, most processors consider their plant as only one component of an integrated system that requires a healthy harvesting sector, a stable and reliable processing labor force and an efficient plant, and capable management and adequate financial backing.

The general sector description contained in IAI 1994 is still generally valid, with a few caveats. Less halibut is delivered and processed in Kodiak than in previous years, as one result of the IFQ system has been to reduce the processors margin on halibut to very little. Harvesters can receive a higher price in Homer or Seward than in Kodiak, and both of those ports receive more halibut than does Kodiak. Most processors are also very uncertain as to how they will meet their future labor requirements. At present most retain a "core" crew of Kodiak residents, which they supplement as necessary with additional resident labor, and transient labor housed in a bunkhouse for peak demand periods. Processors seldom wish to bring labor in for any period shorter than the summer, due to the need to train and house such labor, but at least one plant was forced to do so the last couple of years. They constructed a forty-person bunkhouse to accommodate them. Other plants that are part of companies with several processing facilities will transfer labor from one to another as labor needs change in the various locations. Labor costs are reported to have increased, due to the strong national economy as well as the increase in locally available entry-level jobs in the retail and service sectors. Plant managers also report that many fewer college students approach them (either remotely or by simply appearing in Kodiak) than in years past.

Support Services

The full spectrum of services for the fishing industry is present in Kodiak, as described in detail in IAI 1991. Support services include a wide range of companies, including such diverse services as accounting and bookkeeping, banking, construction and engineering, diesel sales and service, electrical and electronics services, freight forwarding, hydraulic services, logistical support, marine pilots/tugs, maritime agencies, ship repair facilities (recently enlarged), stevedoring and shipping, and vehicle rentals, among others. There is no other community in the area with this type of development and capacity to support the GOA (and some Bering Sea) fisheries.

The Port of Kodiak is home to Alaska's largest and most diverse fishing fleet. It has more than 600 boat slips and 3 commercial piers that can handle vessels up to 650 feet long. Kodiak is also a vital link in the regional transportation network. As the hub of the Gulf of Alaska container logistics system, Kodiak serves Southwestern Alaska communities with consumer goods and provides outbound access to world fish markets. LASH Marine Terminal, in Women's Bay, provides service to several freight carriers, freight forwarders and consolidators, construction contractors, and Kodiak's diverse fishing fleet. Regularly scheduled container ships operate between Kodiak and the Pacific

Northwest, and between Kodiak and the Far East. Kodiak is a key link for Alaskan Coastal communities.

No systematic information exists on how support services have been affected by changes in the local economy in general. However, as for other communities, certain less systematic indicators are available. The loss of population in the City of Kodiak relative to outlying regions may reflect a weakening economy. Interviews with such primary fisheries support services such as the boat yard and the hydraulics shops indicated that fishermen were deferring more regular maintenance, and even canceling upgrades that had been scheduled in the past but which now, in the light of adverse fishing conditions, do not appear to be prudent investments. Several such jobs were said to have been canceled the day after the Steller sea lion RPAs were announced. These operations also note that the number of their uncollected bills has increased.